

# Canon

2025 | VOLUME 1

# BROADCAST SOLUTIONS

Broadcast Lenses  
Cinema Lenses  
PTZ cameras



**INNOVATION**  
In TV Optics Since 1958

Toward 100 years anniversary





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# CANON BROADCAST ZOOM LENSES

# CELEBRATING CANON'S STORIED HISTORY

## Development of Broadcast Zoom Lenses

In 1958, Canon launched its broadcast lens business by introducing the innovative high zoom ratio 6.7 IF-1 lens. Ever since, Canon has continued to listen to the demands of broadcasters and cinematographers around the world by developing lenses based on industry trends.

## Canon's Emmy®-Winning Lens Technology

Canon's highly regarded lens technology is a recipient of the Technology and Engineering Emmy® Award. The National Academy of Television Arts and Sciences awarded Canon a Technology & Engineering EMMY® Award in 2005 in recognition of our engineering creativity in Lens Technology Developments for Solid State Imager Cameras in High Definition Formats. We also received an EMMY® in 1996 for "Implementation In Lens Technology to Achieve Compatibility with CCD Sensors." In addition, we received an EMMY® in 2017 for "Large Format 4K Zoom Lenses".



# CANON BROADCAST LENS TECHNOLOGY

## Optical Performance

### Superb Optical Materials Produce a High-Performance Lens

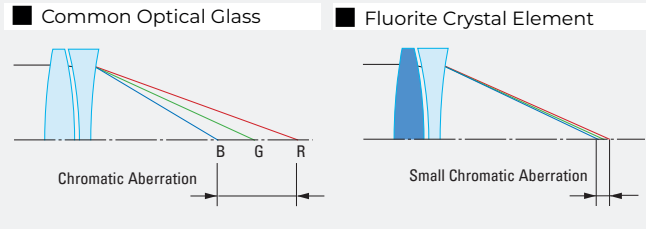
Fluorite · UD Glass · Hi-UD Glass

Unlike conventional optical glass, Fluorite has remarkably low dispersion properties. Realizing the effectiveness of Fluorite glass, Canon has put it to practical use in many lenses, primarily the anterior section of zoom lenses to help correct telephoto chromatic aberration. Both UD\*1 glass and Hi-UD glass\*2 have dispersion properties similar to Fluorite and are effective for correcting chromatic aberration. Due to its high refractive characteristics, Hi-UD glass is especially known for its spherical aberration correction. Used in the anterior and zooming sections of a lens, Hi-UD glass is effective for controlling aberration fluctuation seen when focusing and zooming.



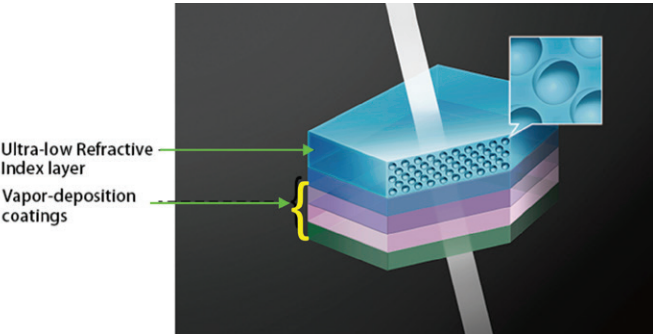
\*1 UD-Ultra Low Dispersion.  
\*2 Hi-UD High Index Ultra Low Dispersion.

### Chromatic Aberration Correction Comparison



### Air Sphere Coating

In the context of HDR Optical imaging, Air Sphere Coating (ASC) technology is a critically important new innovation in broadcast field lenses. This is a Canon-developed technology that is an additional layer deposited on top of the normal multilayer coatings that are used to minimize numerous internal reflections that conspire to lower light transmission efficiency and to contaminate deep black reproduction. ASC is an ultra-low refractive index silicon dioxide film that includes microscopic air spheres having a sub-nanometer diameter arranged in regular structure.



Because these spheres are microscopic when comparing to the wavelength of visible light and as they are in an ordered array, light does not scatter. In combination with the multilayer coatings, ASC achieves far lower reflectance and significantly reduces flare and ghosting

### Bokeh Effect

When shooting in macro, the focus position of the lens can be changed as the focal length is adjusted, when using the optional MCJ-S02 Macro Controller, creating a bokeh effect. This built-in feature can be utilized to support special techniques in which the focus position can be shifted within the same shot just by using the Macro Controller, allowing for subtle creative defocus effects. This can help provide a degree of creativity when shooting live events such as a concert.

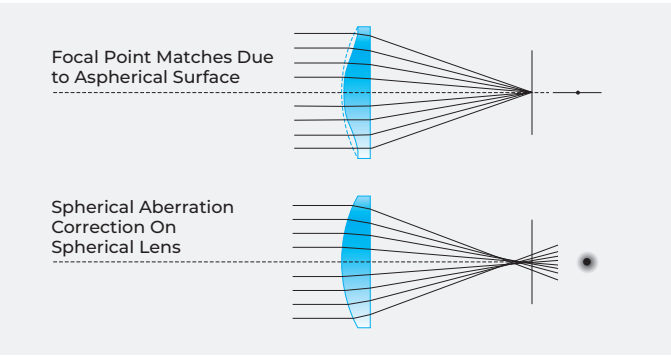


Please see page 16 for Bokeh Effect Controller configuration.

### High Quality, Compact Size and Weight

#### Large Aperture Aspheric Lens

Spherical aberration will increase as the diameter of a spherical lens increases. However, aspheric lenses form an ideal shape for aberration correction and are the desired lens type for improving optical performance. As they are more compact, aspheric lenses reduce the weight of the entire lens system. Through its optical design and large aperture processing techniques, Canon has developed compact, large aperture, high magnification field zoom aspheric lenses. As a result of this development, all high-magnification field zoom lenses released since 2000 have a constant total lens length regardless of zoom ratio.



### Focus Breathing Suppression

#### Constant Angle Focusing System (CAFS)

CAFS is a technology that suppresses view-angle fluctuation (breathing) while focusing. The Zooming Effect of Focus is the phenomenon where the picture size (angle of view) changes when focusing. Canon's 32-bit CPU calculates and controls the zoom when focusing in order to counteract this phenomenon. As a result of CAFS, the UHD-DIGISUPER and DIGISUPER Series has zero Zooming Effect of Focus.

## Advanced Design Technology to Help Minimize Various Aberrations

### Image Stabilizer (IS)

Canon launched its first field zoom lens with a shift type anti-vibration mechanism in 2000\*. Prior to that, Canon introduced the IS-20B anti-vibration adapter for portable zoom lenses. Those cutting-edge technologies, along with the Vari-angle Prism image stabilizer (VAP-IS) lens, helped to usher in the era of optical image stabilization in broadcasting lenses.

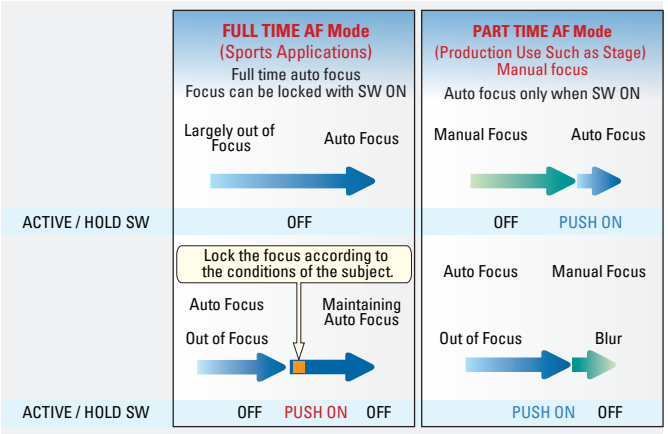
\*Adopted for DIGISUPER 86 XS (XJ86 × 9.3 B). The world's first field zoom lens for broadcasting.

## Auto Focus

### TTL Secondary Imaging Phase Difference Detection Method

The Secondary Imaging Phase Difference Detection Method, also used in single lens reflex EOS camera lenses, was adopted for broadcast autofocus systems. As a result of this Method, Canon's Auto Focus System has excellent focusing accuracy within the entire zoom range, along with outstanding focusing speed. Due to high performance servo motors, tracking a moving object at high speed can be possible even from a largely out of focus state.

### Autofocus Two Types of Operation



### AF Mode

Select DIGISUPER lenses provide two autofocus modes. "FULL TIME AF" provides continuous autofocus operation allowing the camera operator to focus on framing the subject. "PART TIME AF" allows for temporary autofocus use with manual focus. The modes can be switched on and off as needed, using the ACTIVE/HOLD switch.

### AF In-Focus Display

By using the FDJ - S41 dedicated focus demand, you can change the size (3 options) and position of the AF in – focus frame displayed on the viewfinder\*.

\*To change the in-focus frame, it is necessary to interlock with the camera.



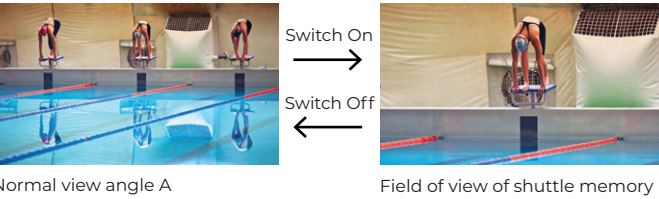
## Digital Technology

### Digital Servo System/Digital Drive Unit

Since the release of the DIGISUPER 70 in 1995, Canon has been a leader in digital broadcast zoom lens control. Canon's ENG/EFP lenses, having the same digital technology, offer a wealth of features to make shooting more efficient. Canon's digital drive unit is installed in all ENG/EFP and Provideo broadcast lenses.

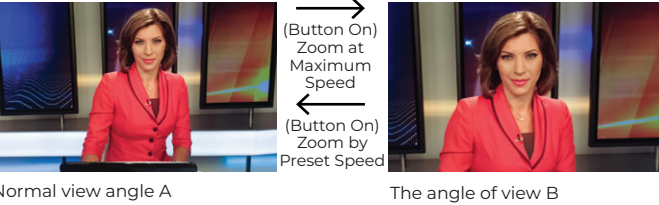
### Shuttle Shot

At the touch of a button, this feature allows the operator to zoom back and forth instantly between any two positions at the maximum speed or at any speed memorized in the Speed Presets.



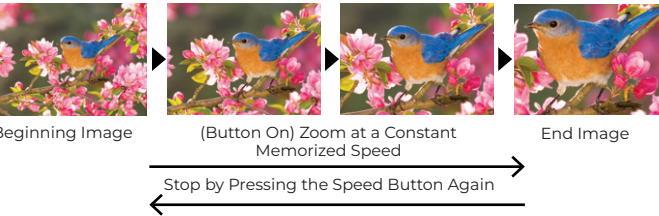
### Frame Preset

With the Frame Preset feature, a preset frame position can be saved and repeated multiple times.



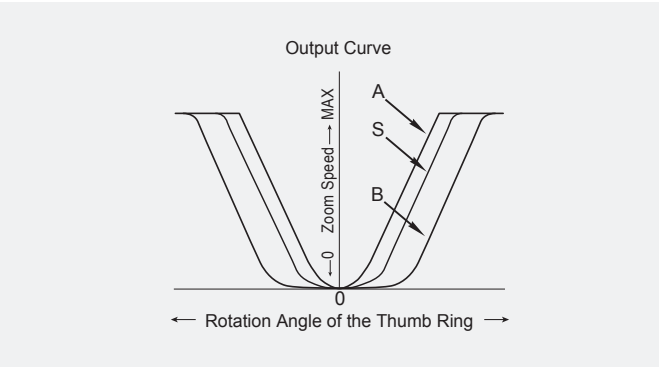
### Speed Preset

Simply press a button to recall the preset zoom speed.



### Zoom Servo Characteristics

Zoom Servo characteristics can be selected from three curvature options on the ZDJ-G01/S01 zoom demand.



Zoom Servo Characteristics Example



Virtual Studio System

Canon has a series of HDxs and HDGC (IRSE/IASE version) lenses which are equipped with a digital drive unit. The 16-bit resolution rotary encoder built into the drive unit can be integrated into a virtual studio system. The encoders enable precise control as the zoom servo has a range of 0.5 second quick zooms to over a 5 minute super slow zoom. Repeatability in focus and iris control are also precise. Canon's technology has made the encoder device very small, allowing it to be installed in the existing drive unit without adding size or weight.

Further Improving Operational Efficiency

Canon's next-generation drive unit, the e-Xs V Type T, introduced together with the CJ27ex7.3 B\*, has the following new features:

- USB-C port: allows drive unit settings, maintenance records and lens information to be saved to an external drive
- Angled 20-pin connector making for easier connectivity, less interference; allows the camera/lens to be placed on a flat surface
- The lens LCD display is now conveniently located on the top of the drive unit
- Updated and re-organized LCD display menu
- Faster Iris speed
- Focus breathing compensation can be turned on/off

Type T and Type S Drive Units share these common features:

- Matches the aberration correction function on the camera without initialization at power-on
- Reduced power consumption by about 10%<sup>2</sup> when using a battery as compared with previous versions
- Real and virtual images can easily be calibrated with high-precision position detection
- Three 20 PIN connectors allow for simultaneous full servo and virtual system operation
- Easy operation with straightforward menu and display

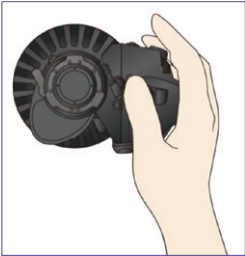
■ Zoom Track

The zoom control range can be set within a more limited range on both the telephoto and wide-angle sides of UHD-DIGISUPER and DIGISUPER Series lenses. With these lenses and the optional ZDJ-G01/S01 zoom demand, the zoom range can be set to virtually any range smaller than the full focal range of the lens. If not used to limit the zoom range, the feature can be used to memorize an additional preset zoom position.

Ergonomic Design

Compact and Lightweight Drive Unit

The grip design is ergonomic, providing an outstanding feel during operation. Additional space in the focus ring area makes manual focusing easier. The grip is positioned close to the optical axis of the lens to reduce fatigue.



\*1: Refer to p. 18 for more information on the drive unit and the CJ27ex7.3B.

\*2: When zoom, focus & iris in operation.

Ergonomic design allows the camera operator's left hand to easily access the focus ring for manual operation.

THE ERA OF ENHANCED HDTV AND UHDTV

BCTV LENSES DESIGNED TO SUPPORT 4K UHD CONTENT CREATION

HDTV is now firmly established worldwide and HD production is expected to continue. Ultra HDTV – generally referred to as UHD – has more recently emerged as the next generation of enhanced television service. In 2015 the International Telecommunications union published their ITU-R BT.2020 standard “Parameter Values for UHDTV Systems for Production and international Program Exchange” – that included both 4K UHD and 8K UHD production formats. This standard includes a Wide Colour Gamut (WCG). In 2016 they published the ITU-R BT.2100 standard “Image Parameter Vales for High Dynamic Range Television for use in Production and International Program Exchange”. This standard specifically applies the High Dynamic Range (HDR) to the HD, 4K UHD, and 8K UHD production formats (all exclusively progressive scan). In September 2017 the industry body – Ultra HD Forum – published their updated Guidelines on technologies and practices that support a commercially deployable Ultra HD real-time linear service with live and pre-recorded content in 2016, which is termed a “UHD Phase A” service. They include 4K UHD and 1080P HD (that includes both HDR and WCG).

These standards and guidelines have spurred increasing attention to the adoption of 4K UHD origination of sports, concerts, and major events. The anticipated protracted coexistence of HDTV and UHDTV has spawned a new generation of 2/3-inch multi format broadcast camera systems – from most of the major international camera manufacturers – that can selectively originate HD or UHD. To support this new era of mixed HD / UHD origination Canon has invested heavily into the development of an array of 2/3-inch 4K UHD broadcast lenses that encompass long zoom field lenses, a studio lens, and a broadening family of portable lenses.

Simplistic mapping of the performance levels within the separate categories of box lenses and portable lenses.

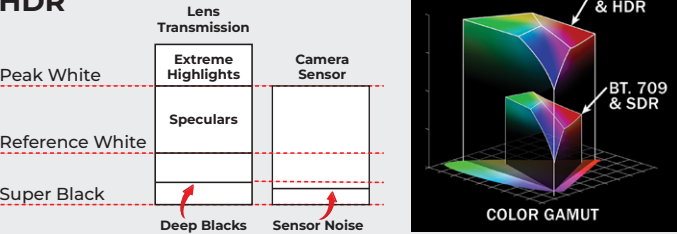
STUDIO / FIELD BOX LENSES			EFP / ENG PORTABLE LENSES		
LENS SERIES	PERFORMANCE		LENS SERIES	PERFORMANCE	
UHDxs	4K Premium	1080P/HDR/WCG	UHDxs	4K	1080P/HDR/WCG
UHDxs	4K		UHDgc	4K	
HDxs	HD		HDxs	HD	
			HDgc	HD	

IMPLICATIONS OF HDR AND WCG

Delivering the requisite high image sharpness required for 4K UHD – while simultaneously lowering traditional optical aberrations (that can be more exposed by the high resolution image sensors) – called for multiple innovations in lens design and manufacturing. Lateral chromatic aberration causes colour misregistration on high contrast edges within the imagery – especially toward picture extremities. Longitudinal chromatic aberration

causes colour fringing on any speculars with this imagery. HDR and WCG further enhance the visibility of these aberrations – because of the elevation in the colour volume of the camera video – placing a greater onus on suppressing them to where they become subjectively invisible.

HDR



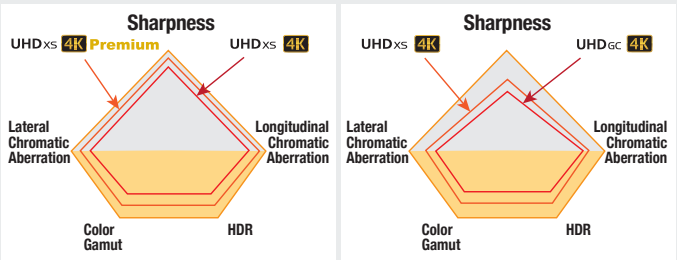
To support HDR the lens must accurately reproduce scene speculars and minimize optical artifacts stimulated by strong scene highlights.

UHD LENS PERFORMANCE HIERARCHY

In the case of the large box field and studio lenses and the portable EFP/ENG lenses Canon has created two performance levels in each. A special priority is assigned to elevating image sharpness (the essence of 4K UHD). An attendant high priority underlies design strategies that aggressively curtail the visibility of the two chromatic aberrations. Higher luminance levels and allied greater colour volume associated with HDR / WCG combine to elevate the visibility of even small levels of these chromatic aberrations.

In the case of the Box lenses advanced design strategies allied with advanced optical glass materials are mobilized to maintain high image sharpness across the image plane, over the total focal ranges, and over a wide range of object distances. The 4K PREMIUM box lenses take these strategies to a particularly high level to further tighten those optical performance specifications.

In the case of the portable lenses, similar priorities apply. The UHDxs manifests higher sharpness and lower chromatic aberrations when compared to the UHDgc – although on a different scale to the box lenses.

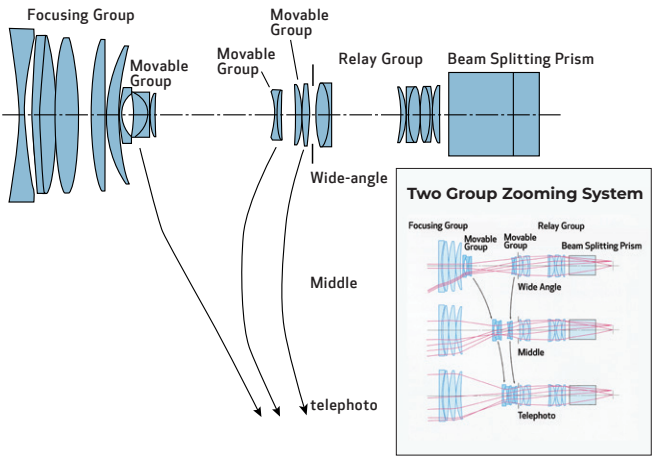


MULTI-GROUP ZOOMING SYSTEM

In seeking longer focal ranges for the box field and studio lenses and some of the longer focal length portable lenses, challenges in achieving the requisite zooming speeds while also achieving UHD performance were escalated. This called for a radical new design approach to the zooming optical subsystems. The central goals were to achieve greater control over multiple lens aberrations to help ensure full 4K performance while at the same

time expediting an increase in the speed of the zooming action (when the digital drive unit is set to maximum zoom speed).

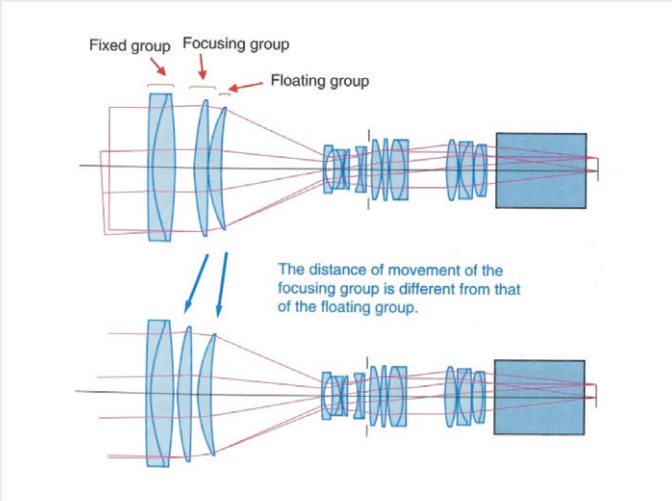
Multi-Group Zooming System



The traditional two group zooming system (right picture) is being replaced with a three group zooming system (left picture). Three movable groups move differentially with respect to each other over the zoom range. Design optimization consisted in balancing the weight of the three individual groups with their stroke distance during zooming action.

FLOATING FOCUSING SYSTEM

The focus optical subsystem entails high responsibility for numerous optical performance parameters and operational considerations. The lens maximum relative aperture is largely determined by the diameter of this lens input optical grouping. In addition, focus breathing (undesirable alteration to the field angle as the focus control is actuated) characteristics and aberration behavior are associated with this optical subsystem. Overall lens size and weight are heavily proportional to decisions made in the overall design of this system. Central to the design is curtailing the size and weight of the moving lens system. To help ensure UHD optical performance focus fluctuations must be suppressed – and this was accomplished by using two separate moving groups.

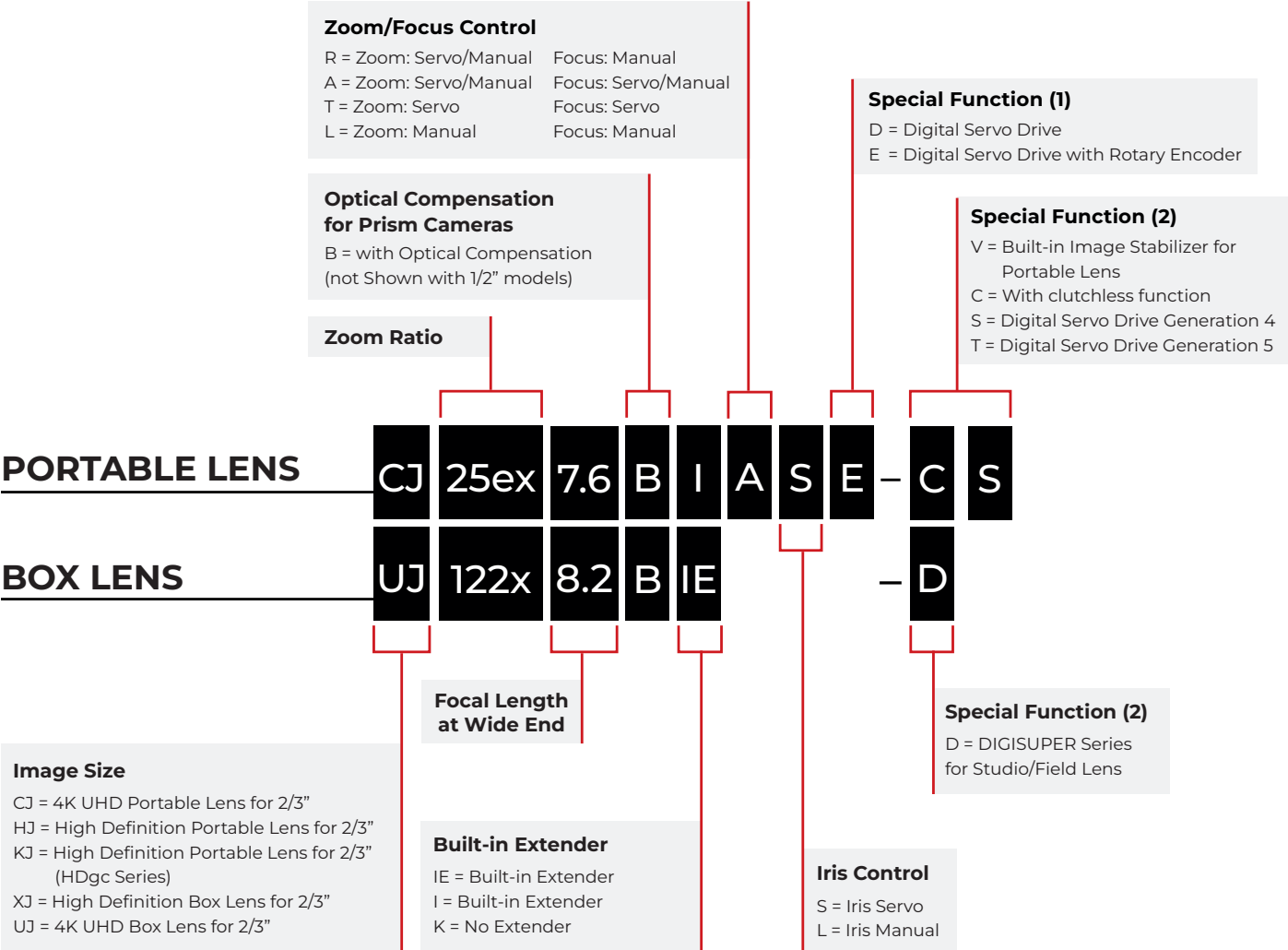


New innovations in a floating focus group support 4K UHD performance while curtailing size and weight



# CANON BROADCAST LENSES

## Understanding Canon Lens Naming Conventions



### Focal Length Table








Broadcast, Studio and Field Lenses (4K 2/3", HD 2/3")																											
Angle of view horizontal (16:9)	72.9°	66.7°	60.7°	60.1°	58.3°	57.2°	56.1°	54.6°	42.3°	39.1°	3.4°	3.1°	1.02°	0.92°	0.81°	0.80°	0.77°	0.69°	0.68°	0.67°	0.65°	0.59°	0.59°	0.55°	0.47°		
Focal Length (mm)	6.5	7.3	8.2	8.3	8.6	8.8	9.0	9.3	12.4	13.5	161	180	540	600	675	690	710	800	810	820	840	925	930	1000	1178		
UHD-DIGISUPER 122AF																											
UHD-DIGISUPER 122																											
UHD-DIGISUPER 111																											
UHD-DIGISUPER 90																											
UHD-DIGISUPER 66																											
UHD-DIGISUPER 27																											
DIGISUPER 80																											

Broadcast ENG/EFP Lenses (4K 2/3", HD 2/3")																																											
Angle of view horizontal (16:9)	96.3°	93.7°	87.7°	77.3°	75.5°	66.7°	65.2°	64.6°	63.9°	60.7°	58.9°	52.7°	51.3°	38.9°	37.8°	35.5°	19.6°	12.2°	10.5°	9.1°	9.1°	7.0°	5.5°	5.2°	4.3°	4.2°	4.0°	3.5°	3.5°	3.4°	3.3°	3.1°	2.89°	2.79°	1.4°	1.26°	1.1°	1.0°	0.9°				
Focal Length (mm)	4.3	4.5	5.0	6	6.2	7.3	7.5	7.6	7.7	8.2	8.5	9.7	10	13.6	14	15	28	45	52	60	65	78	100	106	128	131	137	156	158	164	168	180	190	197	400	437	500	560	612				
CJ45e×13.6B																																											
CJ45e×9.7B																																											
CJ27e×7.3B																																											
CJ25e×7.6B																																											
CJ20e×5B																																											
CJ15e×4.3B																																											
CJ24e×7.5B																																											
CJ18e×28B																																											
CJ18e×7.6B																																											
CJ14e×4.3B																																											
HJ40e×10B																																											
KJ20e×8.2B																																											




Broadcast Studio/Field Lenses

4K UHD 2/3"

	<b>UHD-DIGISUPER 122AF UHDxS</b>	<b>UHD-DIGISUPER 122 UHDxS</b>	<b>UHD-DIGISUPER 111 UHDxS</b>	<b>UHD-DIGISUPER 27 UHDxS</b>
				
	<b>4K Premium</b> 	<b>4K Premium</b> 	<b>4K Premium</b> 	<b>4K Premium</b>
Model Name	UJ122x8.2B AF		UJ122x8.2B	
Zoom Ratio	122x		122x	
Focal Length	8.2 ~ 1000mm		8.2 ~ 1000mm (2.0x)	
Maximum Relative Aperture	F1.7 (8.2 ~ 340mm) F5.0 (1000mm)	F3.4 (16.4 ~ 680mm) F10.0 (2000mm)	F1.7 (8.2 ~ 340mm) F5.0 (1000mm)	F3.4 (16.4 ~ 680mm) F10.0 (2000mm)
Angular Field of View	60.7°×36.5° (8.2mm) 0.55°×0.31° (100mm)	32.6°×18.7° (16.4mm) 0.28°×0.15° (2000mm)	60.7°×36.5° (8.2mm) 0.55°×0.31° (100mm)	32.6°×18.7° (16.4mm) 0.28°×0.15° (2000mm)
M.O.D.*	3.0m		3.0m	
Object Dimensions at M.O.D.*	314.8×177.1cm (8.2mm) 2.7×1.5cm (1000mm)	157.4×88.6cm (16.4mm) 1.4×0.8cm (2000mm)	314.8×177.1cm (8.2mm) 2.7×1.5cm (1000mm)	157.4×88.6cm (16.4mm) 1.4×0.8cm (2000mm)
Approx. Size (WxHxL)	9.9x10.1x26.1 in. (250.6×255.5×662.0mm)		9.9x10.1x25.1 in. (250.6×255.5×637.4mm)	
Approx. Weight	61.7 lbs (28.0kg) ※		58.6 lbs (26.6kg) ※	

4K UHD 2/3"

	<b>UHD-DIGISUPER 90 UHDxS</b>	<b>UHD-DIGISUPER 66 UHDxS</b>
		
	<b>4K</b> 	<b>4K</b> 
Model Name	UJ90x9B	
Zoom Ratio	90x	
Focal Length	9 ~ 810mm	
Maximum Relative Aperture	F2.4 (9 ~ 486mm) F4.0 (810mm)	F4.8 (18 ~ 972mm) F8.0 (1620mm)
Angular Field of View	56.1°×33.4° (9mm) 0.68°×0.38° (810mm)	29.9°×17.1° (18mm) 0.34°×0.19° (1620mm)
M.O.D.*	3.0m	
Object Dimensions at M.O.D.*	287.9×161.9cm (9mm) 3.3×1.9cm (810mm)	144.0×81.0cm (18mm) 1.7×1.0cm (1620mm)
Approx. Size (WxHxL)	9.9x10x24 in. (250.6×255.5×610mm)	
Approx. Weight	51.2 lbs (23.2kg) ※	

※ Weight of lens body only (does not include servo module).  
\* M.O.D. = Minimum Object Distance.

NOVEL LOOK



Captivating shallow depth of field

By adding a new optical unit to the built-in extender turret, a distinctive “Novel Look” is achieved, giving subjects a striking cinematic presence when using a broadcast box lens.

The optical unit features a unique design that makes focusing simple, even at wide apertures, while maintaining the same colour tone as conventional broadcast lenses to ensure seamless integration into standard 2/3" broadcast workflows.

It is compatible with both the UJ122x8.2B and UJ111x8.3B models.

UHD-DIGISUPER 122 AF, UHD-DIGISUPER 122: HIGHLIGHTS

High Zoom Ratio and Long Focal Length

While displaying performance that surpasses 4K, the lens has the high zoom ratio (122x) and long focal length (1000 mm) desired by many in television production.

Elimination of Image “Lag” Following Operational Pan/Tilt Movements

The image stabilization system must be capable of distinguishing between unwanted physical perturbations to the lens-camera system and operational control of panning and tilting of the same. In the UHD-DIGISUPER 122 lens new correction strategies have been implemented. As a result, the vibration component of the sensor detection signal and the panning operation component can be separated rapidly and with high accuracy.

Ideally Suited to 4K Shooting

Lens is ideally suited for 4K UHD shooting required when telecasting live sports events and other applications.

Air Sphere Coating (ASC) Technology

This is a Canon-developed technology that is an additional layer deposited on top of the normal multilayer coatings that are used to minimize those many internal reflections that conspire to lower light transmission efficiency and to contaminate deep black reproduction.

High Speed, High Precision Auto Focus

The UJ122AF's high-precision auto focus is enabled with Canon's Motion Tracking Feature.\*  
\* Available only on UJ122AF



Compatibility with HD Lens Systems

The lens enables the use of the same Canon standard controllers for zoom and focus as well as servo modules currently used by HD equipment. It comes with a 20-pin connector compatible with virtual units and that enables high-accuracy position information of the zoom, focus and iris to be read out.



Broadcast Studio/Field Lenses

HD 2/3"

	<b>DIGISUPER 80</b>	
		
		
Model Name	DIGISUPER 80	
Zoom Ratio	80x	
Focal Length	8.8-710mm	17.6-1420mm (2.0x)
Maximum Relative Aperture	1:1.7 at 8.8 ~ 340mm 1:3.55 at 710mm	1:3.4 at 17.6 ~ 680mm (with 2x Extender) 1:7.1 at 1420mm (with 2x Extender)
Angular Field of View	57.2° × 34.1° at 8.8mm 0.77° × 0.44° at 710mm	30.5° × 17.4° at 17.6mm (with 2x Extender) 0.39° × 0.22° at 1420mm (with 2x Extender)
M.O.D.*	3.0m	
Object Dimensions at M.O.D.*	290.0 × 163.1cm at 8.8mm 3.7 × 2.1cm at 710mm	145.0 × 81.6cm at 17.6mm (with 2x Extender) 1.9 × 1.1cm at 1420mm (with 2x Extender)
Approx. Size (WxHxL)	250.6 x 255.5 x 610mm	
Approx. Weight	23.2kg ※	

※ Weight of lens body only (does not include servo module).  
\* M.O.D. = Minimum Object Distance.

ZOOM DEMAND: HIGHLIGHTS

ZDJ-G01

ZDJ-S01

Display Switch<sup>1</sup>

IS Switch

Talk Back Switch

Thumb Ring

AUX1 Switch<sup>2</sup>

Tracking Switch

MEMO Switch

Display<sup>1</sup>

Control Key

Extender Selector Switch

AUX2 Switch

Zoom Output Curve Selector Switch

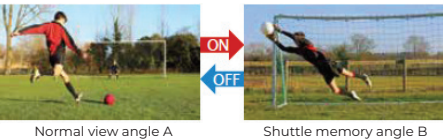
Return Video Switch (RET)

Maximum Speed Adjusting Knob

Main Features

Frame Preset/Shuttle Shot/Speed Preset

This function moves to a preset zoom position with the push of a witch. Frame preset and shuttle shot each moves at maximum speed, while speed preset moves at preset speed. Letting go of the switch in shuttle shot returns to the original position. Moving speed with framing preset can be set with the ZDJ-G01.



Zoom Track

Zoom control range can be set for both the wide angle and telephoto sides, to control zoom range required for actual shooting.

The Unit pictured is the ZDJ-G01

<sup>1</sup>: Not available on the ZDJ-S01

<sup>2</sup>: This is a framing preset switch on the ZDJ-S01



Control Accessories for Studio/Field Lenses

DIGITAL UHD-DIGISUPER/DIGISUPER Series

For:  
DIGISUPER 122AF

For:  
UHD-DIGISUPER 122 / UHD-DIGISUPER 111 / UHD-DIGISUPER 90 /  
UHD-DIGISUPER 66 / UHD-DIGISUPER 27 / DIGISUPER 95 TELE /  
DIGISUPER 95 / DIGISUPER 80

**FULL SERVO SYSTEM**

**KIT DETAIL**

No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2-A.	Focus Demand FDJ-S31 (Digital Servo)
2-B.	Focus Demand FDJ-S41 (Digital Servo)
3.	Servo Module SMJ-E01 (2pcs)

**FULL SERVO SYSTEM**

**KIT DETAIL**

No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2-A.	Focus Demand FDJ-G01 (Digital Servo)
2-B.	Focus Demand FDJ-S01 (Digital Servo)
3.	Servo Module SMJ-E01 (2pcs)

**SEMI-SERVO SYSTEM**

**KIT DETAIL**

No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2.	Servo Module SMJ-E01
3.	Flexible Focus Controller FFP-T61
4.	Flexible Module FMJ-702
5.	Flexible Cable 36"

For:  
All UHD-DIGISUPER /  
DIGISUPER Lenses

**FULL MANUAL SYSTEM**

**KIT DETAIL**

No.	DESCRIPTION
1.	Flexible Zoom Controller FZP-T61
2.	Flexible Focus Controller FFP-T61
3.	Flexible Module FMJ-702 (2pcs)
4.	Flexible Cable 36" (2pcs)

For:  
UHD-DIGISUPER 122 AF

**FDJ-S41 FOCUS DEMAND**

**AF MODE change-over switch (OFF/FULL TIME/PART TIME)**

**AF Frame Adjustment Joystick**

**AF ACTIVE/HOLD Switch**

**AF Tracking Adjustment Knob**

**Multiple Communication Capability with Compatible Cameras**

**Operation Knob**

**Torque Adjustment Knob**

For:  
UHD-DIGISUPER 122/  
UHD-DIGISUPER 111

**BOKEH EFFECT CONTROLLER**

**"SW. BOX" connector**

**Macro controller cable**

**Macro controller (standard: MCJ-S02)**

**CR-30**

\*1: Switch Box is optionally available. The equivalent switches are integrated into Zoom Demands. It is recommended to have the Switch Box with Full Manual System.  
\*2: Lens Supporter is necessary for portable camera mounting. Some cameras need separate power supply for zoom and focus servo operation.  
• Zoom Demand and Focus Demand with Pre-set Box is also available.  
• For detail information, please contact a Canon Sales Office.

Control Accessories for Studio/Field Lenses

For:  
DIGISUPER 22 xs  
The DIGISUPER 22 xs can be used with our current optional Studio/Field lens controllers as well as those for our ENG lenses. At the same time, the lens also offers compatibility with our Compact Studio/Field demands by use of a conversion cable.

**With Current ENG Demand (Standard)**

**KIT DETAIL**

No.	DESCRIPTION	MODEL #
1	Digital Zoom Demand	ZSD-300D
2	Digital Focus Demand	FPD-400D

**With Compact Field/Studio Demand**

**KIT DETAIL**

No.	DESCRIPTION	MODEL #
1	Digital Zoom Demand	ZDJ-S01
2	Digital Focus Demand	FDJ-S01
3	Conversion Cable	BDC-21

**With Current Field/Studio Demand**

**KIT DETAIL**

No.	DESCRIPTION	MODEL #
1-a	Digital Zoom Demand	ZDJ-G01
2-a	Digital Focus Demand	FDJ-G01
3	Conversion Cable	BDC-21

Studio/Field Lenses Mount Compatibility

To Use Camera Manufacturer's Original Mount Lens

Studio/Field lenses are made with mounts corresponding to each manufacturer's Studio/Field cameras. To make the lenses compatible with Portable Studio/Field Companion cameras, the correct lens Support System must be chosen from the following:

**Standard HD Mount (BTA)**  
Panasonic, Ikegami, Hitachi, Grass Valley, Sony

Standard HD Mount Studio Camera Systems from Various Manufacturers

2/3" Portable Companion Cameras with Standard HD Mount System

**Sony**

Sony 2/3" Studio Camera

Lens with Sony Original Mount

SUP-NP2s

Sony System Companion Portable Camera

**Grass Valley-SDTV**

LDK 2/3" Studio Camera

Lens with LDK Original Mount

Xpander LDK4489/ Super Xpander LDK4488 Large Lens Adaptor

LDK System Companion Portable Camera

Please confirm with camera manufacturer regarding the proper supporter to use.  
Some manufacturers vary by camera model.



Broadcast ENG/EFP Lenses

4K UHD 2/3"						
	<b>CJ45ex13.6B</b> <b>UHD XS</b>  IMAGE STABILIZER 4K		<b>CJ45ex9.7B</b> <b>UHD XS</b>  IMAGE STABILIZER 4K		<b>CJ25ex7.6B</b> <b>UHD XS</b>  4K	
Model Name	CJ45ex13.6B IASE-V H		CJ45ex9.7B IASE-V H		CJ25ex7.6B IRSE S/IASE S	
Zoom Ratio	45x		45x		25x	
Focal Length	13.6 ~ 612mm 27.2 ~ 1224mm (2.0x)		9.7 ~ 437mm 19.4 ~ 874mm (2.0x)		7.6 ~ 190mm 15.2 ~ 380mm (2.0x)	
Maximum Relative Aperture	F1:2.8 (13.6 ~ 312mm) F1:5.5 (612mm)		F1:2.0 (9.7 ~ 224mm) F1:3.9 (437mm)		F1:8 (7.6 ~ 1108mm) F2.9 (190mm)	
Angular Field of View	38.9°×22.5° (13.6mm) 0.90°×0.51° (612mm)		52.7°×31.1° (9.7mm) 1.26°×0.71° (437mm)		64.6°×39.1° (7.6mm) 2.89°×1.63° (190mm)	
M.O.D.* from Lens Front	2.8m		2.8m		0.8m	
Object Dimensions at M.O.D.*	182.9x102.9cm (13.6mm) 4.2x2.4cm (612mm)		254.3x143.0cm (9.7mm) 5.8x3.3cm (437mm)		93.9x52.8cm (7.6mm) 3.9x2.2cm (190mm)	
Filter Thread Size (Hood/Lens Barrel)	- / 127mm P0.75		- / 127mm P0.75		105mm P1 / 94mm P1	
Approx. Size (WxHxL)	6.8x5.8x14.0 in. (173.2x147.5x355.0mm)		6.8x5.8x13.3 in. (173.2x147.5x337.0mm)		6.8x4.5x8.8 in. (169.6x114.4x223.36mm)	
Approx. Weight	12.4 lb (5.64kg)		12.3 lbs (5.60kg)		4.4 lb (1.99kg)	

CJ27ex7.3B IASE: Highlights

**High Optical Performance**  
Excellent optical performance for 4K cameras that maintains high resolution from the center of the image to the periphery.

**Suits a Variety of Shooting Needs**  
Combination of 7.3mm wide angle and a class-leading\* 27x zoom magnification with the portability of an ENG lens.



**Next-Generation e-Xs V Drive Unit**  
A new design with more advanced features and improved ergonomics.

**Built-in 2x Extender**  
4K Optical performance is maintained even when the 2x extender is engaged.

e-Xs V DRIVE UNIT: Highlights

**Focus Breathing Compensation**  
A new feature which minimizes image distortion when racking focus. This setting can easily be turned on or off depending on preference.

**Angled 20-pin Connector**  
Allows the camera to be placed on a flat surface with a 20-pin cable connected.

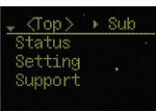


**New USB-C Port**  
Allows Drive Unit settings to be saved and loaded into other lenses. End users would be able to update firmware and can record and save maintenance history.

**Improved Servo Control**  
Faster iris speed.



**Ergonomic Design**  
Designed to reduce arm fatigue.



**New Information Display**  
Conveniently located on the top of the drive unit with a simplified menu.

4K UHD 2/3"				
	<b>CJ25ex7.6B</b> <b>UHD XS</b> 		<b>CJ20ex5B</b> <b>UHD XS</b> WIDE 4K	
Model Name	CJ25ex7.6B IASE S		CJ20ex5B IASE T	
Zoom Ratio	25x		20x	
Focal Length	7.6 ~ 190mm 15.2 ~ 380mm (2.0x)		5 ~ 100mm 10 ~ 200mm (2.0x)	
Maximum Relative Aperture	F1:8 (7.6 ~ 1108mm) F2.9 (190mm)		F1:8 (5 ~ 61mm) F2.95 (100mm)	
Angular Field of View	64.6°×39.1° (7.6mm) 2.89°×1.63° (190mm)		87.7°×56.7° (5mm) 5.5°×3.1° (100mm)	
M.O.D.* from Lens Front	0.8m		0.4m	
Object Dimensions at M.O.D.*	93.9x52.8cm (7.6mm) 3.9x2.2cm (190mm)		87.1x49.0cm (5mm) 4.2x2.4cm (100mm)	
Filter Thread Size (Hood/Lens Barrel)	105mm P1 / 94mm P1		127mm P0.75 / 94mm P1	
Approx. Size (WxHxL)	6.8x4.5x8.8 in. (169.6x114.4x223.3mm)		6.5x4.5x9.9 in. (166.2x113.5x251.7mm)	
Approx. Weight	4.4 lb (1.99kg)		5.05 lb (2.29kg)	

\* M.O.D. = Minimum Object Distance.

Broadcast ENG/EFP Lenses

4K UHD 2/3"						
	<b>CJ15ex4.3B</b> <b>UHD XS</b>   		<b>CJ18ex28B</b> <b>UHD GC</b>  		<b>CJ24ex7.5B</b> <b>UHD GC</b>  	
Model Name	CJ15ex4.3B IASE S		CJ18ex28B IASE S		CJ24ex7.5B IASE S	
Zoom Ratio	15x		18x		24x	
Focal Length	4.3 ~ 65mm 8.6 ~ 130mm (2.0x)		28 ~ 500mm 56 ~ 1000mm (2.0x)		7.5 ~ 180mm 15.0 ~ 360mm (2.0x)	
Maximum Relative Aperture	F1.8 (4.3 ~ 40mm) F2.9 (65mm)		F2.8 (28 ~ 286mm) F4.9 (500mm)		F1.8 (7.5 ~ 120mm) F1.2.7 (180mm)	
Angular Field of View	96.3°×64.2° (4.3mm) 8.4°×4.8° (65mm)		19.5°×11.0° (28mm) 1.10°×0.62° (500mm)		65.2°×39.6° (7.5mm) 3.1°×1.7° (180mm)	
M.O.D.* from Lens Front	0.3m		2.2m		0.80m	
Object Dimensions at M.O.D.*	76.1×42.8cm (4.3mm) 4.9×2.8cm (65mm)		71.0×39.9cm (28mm) 4.1×2.3cm (500mm)		96.0×54.0 cm (7.5mm) 4.1×2.3 cm (180mm)	
Filter Thread Size (Hood/Lens Barrel)	127mm P0.75 / -		127mm P0.75 / -		105mm P1 / 94mm P1	
Approx. Size (WxHxL)	6.4x4.2x9.8 in. (163.0×107.6×249.6mm)		7.0x4.8x10.6 in. (177.8×122.5×268.3mm)		6.5x4.3x8.7 in. (164.6×109.1×221.4mm)	
Approx. Weight	4.8 lb (2.19kg)		6.08 lbs (2.76kg)		4.0 lbs (1.82kg)	

4K UHD 2/3"				
	<b>CJ18ex7.6B</b> <b>UHD GC</b>  4K		<b>CJ14ex4.3B</b> <b>UHD GC</b>  WIDE 4K	
Model Name	CJ18ex7.6B IASE T		CJ14ex4.3B IASE S	
Zoom Ratio	18x		14x	
Focal Length	7.6 ~ 137 mm 15.2 ~ 274 mm (2.0x)		4.3 ~ 60mm 8.6 ~ 120mm (2.0x)	
Maximum Relative Aperture	F1:1.8 (7.6 ~ 103mm) F1:2.4 (137mm)		F1:1.8 (4.3 ~ 40mm) F1:2.7 (60mm)	
Angular Field of View	64.6°×39.1° (7.6mm) 4.0°×2.3° (137mm)		96.3°×64.2° (4.3mm) 9.1°×5.2° (60mm)	
M.O.D.* from Lens Front	0.56m		0.30m	
Object Dimensions at M.O.D.*	65.5×36.8 cm (7.6mm) 3.8×2.1 cm (137mm)		38.2×21.5 cm (8.6mm) 2.6×1.5 cm (120mm)	
Filter Thread Size (Hood/Lens Barrel)	- / 82mm P0.75		127mm P0.75 / -	
Approx. Size (WxHxL)	6.3×4.2×8.1 in. (160.4×107.7×206.2mm)		6.4×4.3×9.8 in. (163.5×108.0×247.8mm)	
Approx. Weight	3.86 lbs (1.75kg)		4.7 lbs (2.11kg)	

\* M.O.D. = Minimum Object Distance.



Broadcast ENG/EFP Lenses

HD 2/3"		
	<div>KJ40ex10B</div> <div></div> <div></div> <div></div>	
Model Name	HJ40ex10B IASE-V H	
Zoom Ratio	40x	
Focal Length	10 ~ 400mm	20 ~ 800mm (2.0x)
Maximum Relative Aperature	F2.0 (10 ~ 220mm) F3.65 (400mm)	F4.0 (20 ~ 440mm) F7.3 (800mm)
Angular Field of View	51.3°x30.2° (10mm) 1.4°x0.8° (400mm)	27.0°x15.4° (20mm) 0.7°x0.4° (800mm)
M.O.D.* from Lens Front	2.8m	
Object Dimensions at M.O.D.*	248.4x139.7cm (10mm) 6.2x3.5cm (400mm)	124.2x69.9cm (20mm) 3.1x1.8cm (800mm)
Filter Thread Size (Hood/Lens Barrel)	— / 127mm P0.75	
Approx. Size (WxHxL)	6.6x5.2x13.2 in. (167.5x133.0x355.4mm)	
Approx. Weight	12.1 lbs (5.5 kg)	

Pro-Video Lenses

HD 2/3"			
	<div>KJ20x8.2B</div> <div></div> <div></div>	<div>KJ20x8.2B</div> <div></div> <div></div>	
Model Name	KJ20x8.2B IRSD		KJ20x8.2B KRSD
Zoom Ratio	20x		20x
Focal Length	8.2~164mm	16.4~328mm (2.0x)	8.2~164mm
Maximum Relative Aperature	1:1.9 at 8.2~115.4mm 1:2.7 at 164mm	1:3.8 at 16.4~230.8mm) 1:5.4 at 328mm	1:1.9 at 8.2~115.4mm 1:2.7 at 164mm
Angular Field of View	60.7°x36.5° at 8.2mm 3.4°x1.9° at 164mm	32.6°x18.7° at 16.4mm 1.7°x0.9° at 328mm	60.7°x36.5° at 8.2mm 3.4°x1.9° at 164mm
M.O.D.* from Lens Front	0.9m		0.9m
Object Dimensions at M.O.D.*	98.2x55.2cm at 8.2mm 5.0x2.8cm at 164mm	49.1x27.6cm at 16.4mm 2.5x1.4cm at 328mm	98.2x55.2cm at 8.2mm 5.0x2.8cm at 164mm
Filter Thread Size (Hood/Lens Barrel)	— / 82mm P0.75		— / 82mm P0.75
Approx. Size (WxHxL)	6.4x4.1x8.2 in. (163.3x104.1x208.0mm)		6.4x4x7.2 in. (163.3x101.6x181.8mm)
Approx. Weight	3.13 lbs (1.42kg)		2.76 lbs (1.25kg)

Broadcast ENG/EFP, Pro Video Lens Optical Accessories

Adaptor Type Converters/Attachments

CATEGORY	MODEL	CJ45ex13.6B CJ45ex9.7B CJ18ex28B	CJ15ex4.3B CJ14ex4.3B CJ20ex5B HJ40ex14B HJ40ex10B	CJ27ex7.3B CJ25ex7.6B CJ24e×7.5B	CJ18ex7.6B KJ20x8.2B
CLOSE-UP LENS	105CL-UP800HG			●	
UV FILTER	UV / 82				●
	UV / 94			●	
	UV / 105			●	
	UV/127		●		
	UV / 127-H	●	●		
CLEAR FILTER	CL/127MM-H	●	●		

Broadcast ENG/EFP, Pro Video Lens Accessories

Compatible Zoom/Focus Control List

OPERATION	CATEGORY	MODEL	CJ45ex13.6B CJ45ex9.7B CJ18ex28B HJ40ex14B HJ40ex10B	CJ27ex7.3B CJ25ex7.6B CJ24ex7.5B CJ20ex5B	CJ18ex7.6B CJ15ex4.3B CJ14ex4.3B	KJ20x8.2B
FOCUS	FOCUS DEMAND	FPD-400D	●	●		
	DRIVE UNIT	FPM-77				●
	FLEX CONTROLLER	FFC-200	● *1	● *2		●
	OUTLET	FLEXIBLE CABLE (32 INCHES)	● *1	● *2		●
		FFM-100		● *2		
		FM-12				●
ZOOM	PROVIDEO ZOOM	FFM-300	● *1			
		ZSD-300D	●	●		
		ZSD-15MII				●

\* 1: These accessories are not recommended for use with CJ45ex9.7B ,CJ45ex13.6B and CJ18ex28B.  
\* 2: These controllers are not recommended for shooting 4K with CJ lenses.



Broadcast ENG/EFP, Pro Video Lens Accessories

Focus Controller



Zoom Controller



Conversion Cable is Necessary When Using with the Following Combinations

Model Name	Applicable Lens	Adapter Cable	Lens Side Pin#	Control Side Pin#
FPD-400	Digital Drive Lens	CC-2006	20	6
ZSD-300		CC-2008	20	8

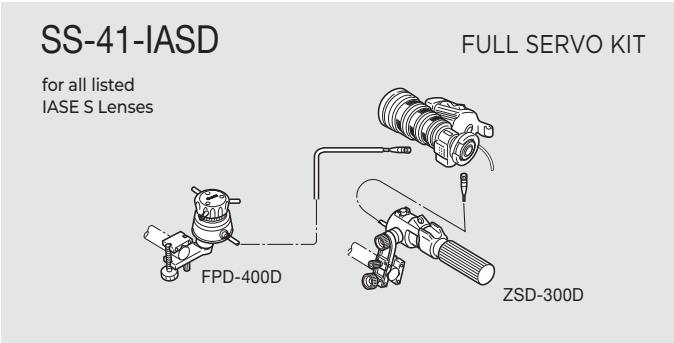
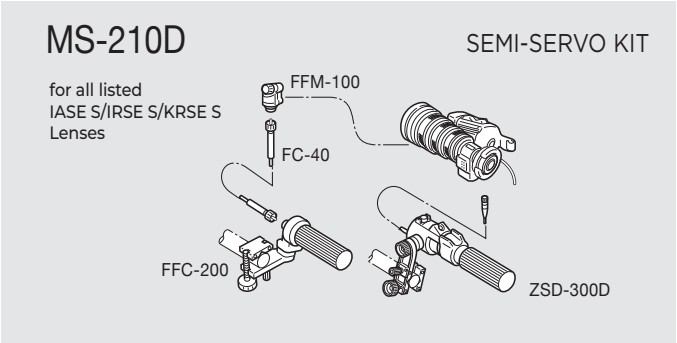
Model Name	Applicable Lens	Adapter Cable	Lens Side Pin#	Control Side Pin#
FPD-400D	Analog Drive Lens	CC-0620	6	20
ZSD-300D		CC-0820	8	20

\* Not sold individually.

Control Accessories for Digital Drive ENG/EFP Lenses

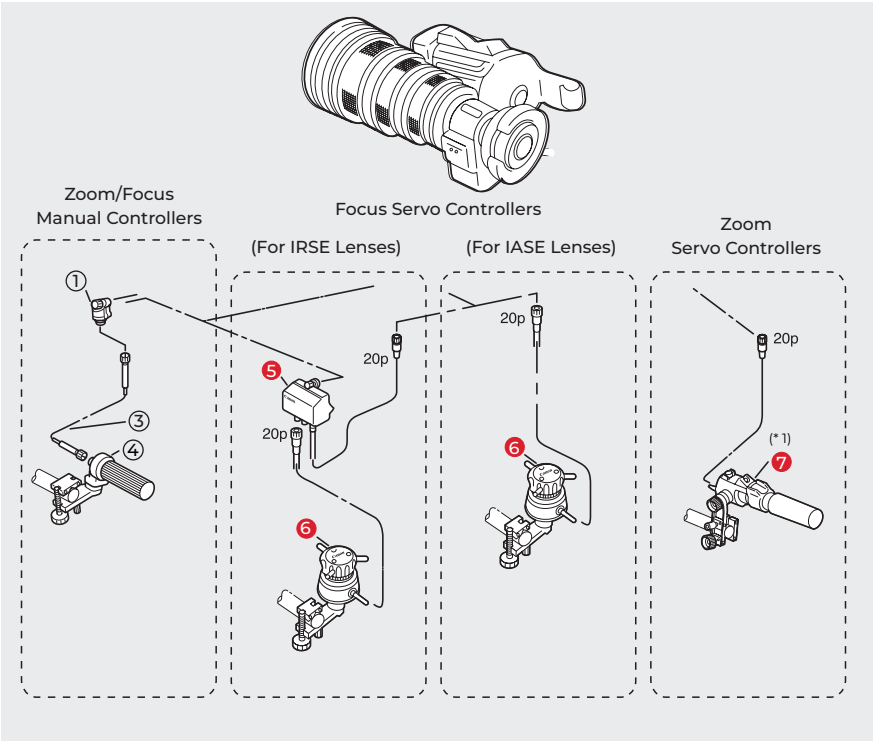
CJ45ex13.6B / CJ45ex9.7B / CJ27ex7.3B / CJ25ex7.6B / CJ20ex5B / CJ18ex28B / CJ24ex7.5B / CJ18ex7.6B / CJ14ex4.3B / HJ40ex14B / HJ40ex10B / KJ22ex7.6B / KJ17ex7.7B / KJ10ex4.5B

Recommended Kit Configurations



DIGITAL Control Accessories of Digital Drive ENG/EFP Lenses

Applicable Component Detail



#	UNIT	DESCRIPTION
①	FFM-100	Flex Focus Module
②	FFM-300	Flex Focus Module
③	FC-40	Flex Cable
④	FFC-200	Flex Focus Controller
⑤	FPM-420D	Focus Positional Servo Module
⑥	FPD-400D	Focus Positional Demand
⑦	ZSD-300D <sup>1</sup>	Zoom Demand
⑧	CR-10	Clamper
⑨	CC-2008	20p-8p Cable

<sup>1</sup>: Analog ZSD-300A/M is also applicable but CC-2008 is needed to connect between IASE S digital drive lens and ZSD-300A/M.

● The controllers support the new DD functions.

Applicable Kit Detail

For IRSE S Type Lenses

	Kit Name	Zoom Unit #	Focus Unit #
Zoom Servo Only	—	⑦	—
Semi-Servo	MS-210D	⑦	① ③ ④
Full Servo	SS-41-D	⑦	⑤ ⑥

For CJ45ex13.6B, CJ45ex9.7B, hj40ex14B and hj40ex10B

	Kit Name	Zoom Unit #	Focus Unit #
Zoom Servo Only	—	⑦	—
Semi-Servo	—	⑦	② ③ ④
Full Servo	SS-41-IASD	⑦	⑥

For for IASE S Type/ T Type Lenses  
(Except HJ40ex, CJ45ex)

	Kit Name	Zoom Unit #	Focus Unit #
Zoom Servo Only	—	⑦	—
Semi-Servo	MS-210D	⑦	① ③ ④
Full Servo	SS-41-IASD	⑦	⑥

■ Recommended kit configuration.



ANALOG Control Accessories for Analog Drive HDgc Lenses

Recommended Kit Configuration

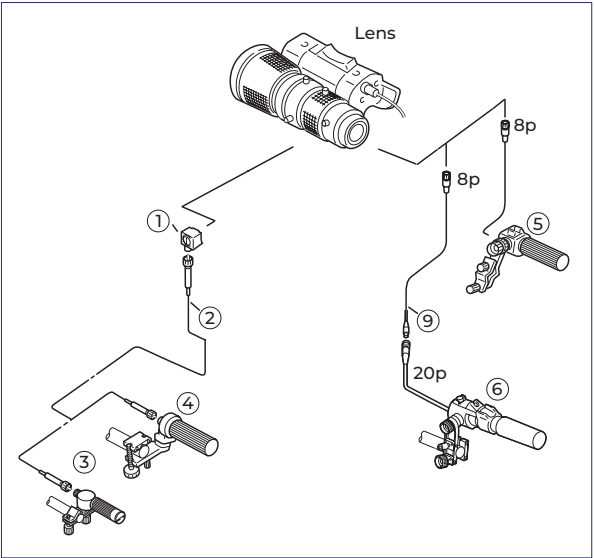
**MS-15**  
for all Pro-video ENG lenses

SEMI-SERVO KIT

**MS-21D**  
for all Pro-video ENG lenses

SEMI-SERVO KIT

Applicable Component Detail



#	UNIT	DESCRIPTION
①	FM-12	Flex Focus Module
②	FC-40	Flex Cable
③	FFC-15	Flex Focus Controller
④	FFC-200	Flex Focus Controller
⑤	ZSD-15M II	Zoom Demand
⑥	ZSD-300D	Zoom Demand
⑦	CR-10	Clamper
⑧	EC-80	Zoom Extension Cable (8P)
⑨	CC-0820	Conv. Cable (8pM-20pF)

Applicable Kit Detail

	Kit Name	Zoom	Focus
		Unit #	Unit #
Zoom Servo Only	—	⑤	—
Semi-Servo	MS-15	⑤*	① ② ③*
	MS-21D	⑥ ⑩	① ② ④

\*In USA, ⑤ and ③ are available only as MS-15 kit configuration and not as individual products.

■ Recommended kit configuration.





# CANON CINEMA LENS TECHNOLOGY

## Optical Performance

### Crystal Clear Canon Optical Technology

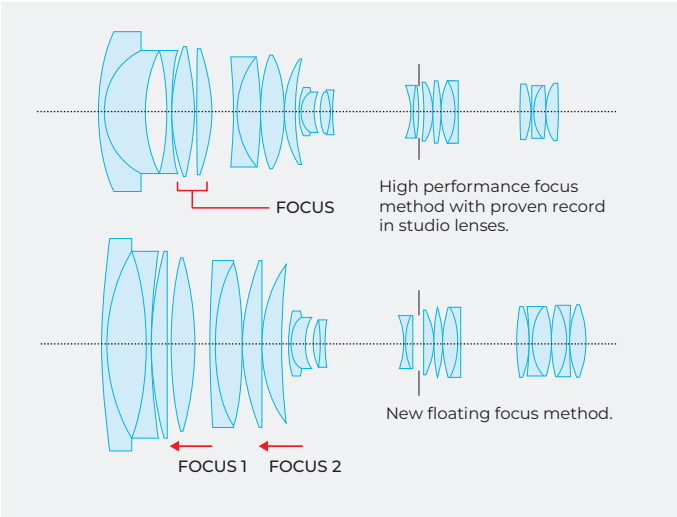
Super 35mm or Full Frame, High quality 4K/HDR

From the center to the periphery of our cinema lenses, a high-quality 4K/HDR image is achieved for both single focus and zoom lenses within the entire zoom range. Canon's optical technologies are combined to help correct various aberrations and provide high contrast while achieving a high resolution of about 80 lines/mm throughout the sensor.



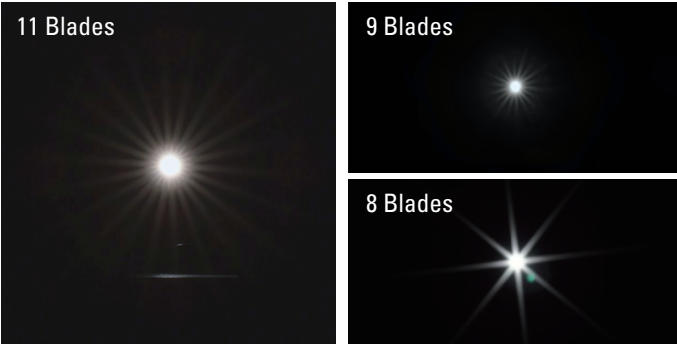
### Focus Breathing Suppression

Focus breathing is caused when the focus group moves and exerts a "zooming" effect. In order to prevent this, cinema lenses implement a 3-group inner focus method and a new floating method to help minimize field angle fluctuation and achieve stable framing.



### 11 Blade Aperture

Halos from points of light at night or from rays of sunlight in shots that show the sun take on the shape of the Iris blades. The odd number of blades make the iris aperture look circular even when the Iris is contracted, enabling beautiful, round highlight bokeh.



### Warm Colour Balance

Cinema lens colour balance, ideal for movie production, reproduces warm skin tones. Colour balance is strictly uniform across all Canon cinema lenses making lens substitution during the same scene possible. Anti-reflection film technology, including super spectral coatings and thorough corrections for slight colour variations caused by glass components allow Canon lenses to achieve this effect.



### Flange Back Adjustment

A flange back adjustment mechanism is installed on the zoom lens mounts to allow for back focus adjustments.

\* Excluding EF, RF and Sumire Prime Lenses.

## Cinema Lens Focal Distance Table

FLEX ZOOM Lenses								
Focal Distance (mm)	14	20	31.5	35	45	50	95	135
CN-E14-35mm T1.7 L S / SP								
CN-E31.5-95mm T1.7 L S / SP								
CN-E20-50mm T2.4 L F / FP								
CN-E45-135mm T2.4 L F / FP								

RF PRIME Lenses								
Angle of view horizontal (1.78:1) *2	82.6°	63.2°	54.3°	38.7°	27.6°	16.5°	10.4°	
Focal Distance (mm)	14	20	24	35	50	85	135	
CN-R14mm T3.1 L F								
CN-R20mm T1.5 L F								
CN-R24mm T1.5 L F								
CN-R35mm T1.5 L F								
CN-R50mm T1.3 L F								
CN-R85mm T1.3 L F								
CN-R135mm T2.2 L F								

SUMIRE PRIME Lenses								
Angle of view horizontal (1.78:1) *2	82.6°	63.2°	54.3°	38.7°	27.6°	16.5°	10.4°	
Focal Distance (mm)	14	20	24	35	50	85	135	
CN-E14mm T3.1 FP X								
CN-E20mm T1.5 FP X								
CN-E24mm T1.5 FP X								
CN-E35mm T1.5 FP X								
CN-E50mm T1.3 FP X								
CN-E85mm T1.3 FP X								
CN-E135mm T2.2 FP X								

CINE-SERVO Lenses								
Angle of view horizontal (1.78:1) *2	96.4°	78.7°	71.8°	52.4°	27.6°	25.2°	11.7°	5.6°
Focal Distance (mm)	11	15	17	25	50	55	120	250
CN5x11 IAS T								
CN8x15 IAS S								
CN7x17 KAS S / CN7x17 KAS T								
CN10x25 IAS S								
CN20x50 IAS H								

COMPACT-SERVO Lenses								
Angle of view horizontal (1.78:1) *2	68.7°				19.9°	17.5°		7.0°
Focal Distance (mm)	18				70	80		200
CN-E70-200mm T4.4 L IS KAS S								
CN-E18-80mm T4.4 L IS KAS S								

\*1: When the screen size is 24.0 × 13.5 mm.

\*2: When the screen size is 24.6 × 13.8 mm.

### Luminous Index

The focus index on the front lens barrels is printed with luminescent paint to improve visibility at night and in dark studio conditions.



### Dust/Splash Resistant Seals and Casing\*

Our EF, RF and Sumire Prime lenses use dust and splash resistant rubber gaskets at the casing joints.

\* Lenses are not designed to be submersible in water or exposed to heavy rain.





# Sumire Prime

Canon has introduced a line of cinema prime lenses – appropriately named “SUMIRE Prime”. Pronounced “Soo-mee-ray” in Japanese. It is associated with a floral gentleness and beauty. In addition to bright T-stops and Canon’s renowned warm imagery, a unique optical design introduces a nuanced look as the lens aperture approaches its maximum setting – subtly modifying the textural renderings of the human facial close-up. It also smooths the transition to the fall-off portions of the scene resulting in a pleasing bokeh. This combination adds emotional expressiveness to a memorable scene.



Gentle and Beautiful Skin Tone

Smooth Bokeh

## PL MOUNT

- CN-E14mm T3.1 FP X
- CN-E20mm T1.5 FP X
- CN-E24mm T1.5 FP X
- CN-E35mm T1.5 FP X
- CN-E50mm T1.3 FP X
- CN-E85mm T1.3 FP X
- CN-E135mm T2.2 FP X



## SUMIRE PRIME Lens Series: Highlights

### Covers Full-frame, Super 35mm and APS-C Sensors

The lenses are also compatible with the large imaging area of cameras equipped with a full-size 35mm-equivalent CMOS sensor.

### Phosphorescent Indicators

To improve visibility in nighttime and dark area shooting, indicator markings with phosphorescent paint have been adopted for the front barrel (for right-side viewing).

### Artistically Pleasing Image Rendering And Warm Colours

The original lens composition with large diameter aspheric lens and anomalous dispersion glass offers more solid and artistically pleasing image rendering. This brings out the impressive image quality of 4K cinema images in all their glory. And the warm colour tones have been made consistent throughout the series to artistically pleasing capture people’s facial expressions and enable better depiction of the subject’s texture.

### Minimized Focus Breathing

The lens controls focus breathing, which realizes stability in images even when bokeh effects occur due to refocusing.

### Unified Front Lens Diameter, Gear Position

Compact Zoom and Prime lenses have the same front lens diameter and consistent gear positions, so lenses within each series can be switched without adjusting the rig setup.

### Sumire Prime Lens Series



### 11-Blade Iris

With the increased number of iris blades, users can get natural bokeh that appears more circular, from maximum to minimum aperture. The use of an odd number of blades diffuses light rays in high-brightness subjects and renders images more artistically pleasing.

### PL Mount

PL mounts, which are in high demand in the cinema market, have been adopted to support a variety of cameras used in this market.

### Soft, Natural Bokeh Effects

The bright T-number of the PRIME lens and multi-blade iris diaphragm produce natural blur effects closer to a circle, from maximum to minimum aperture. This enables more three-dimensional bokeh even with super wide angle lenses that have deeper depth of field, broadening the range of visual expression.



# FLEX YOUR CREATIVITY

## Introducing the 8K Flex Zoom Series

## CINEMA EOS

The Flex Zoom series of lenses from Canon has been designed for outstanding optical performance rendering beautiful and natural images. All Flex Zoom lenses are parfocal, and offer a constant T stop across the entire focal range. Available in EF and PL mount options in Super 35mm and Full Frame sensor formats, these lenses are swappable among all four options, putting the “flex” in Flex Zoom. Advanced Lens Metadata Support includes Cooke /i Technology™ protocol on PL mount models.

### FEATURES:

#### 8K Optical Performance with Canon Cinema EOS Colour Science

The lenses produce superb colour rendition and detail, with sharp images from the center to the outer edges, rated for 8K HDR capture. An 11-blade aperture creates soft, beautiful bokeh and stunning depth-of-field falloff, while an internal focusing system delivers minimized focus breathing and excellent parfocal performance. The lenses render the beautiful and warm colour tones synonymous with Canon’s cinema lens family.

- Canon’s advanced optical technology and lens coatings have combined to achieve 8K optical performance through the zoom range. Various types of aberrations have been corrected to achieve beautiful imagery from the center of the image out to all edges.

- All of Canon’s cinema lenses have been designed with a consistent warm colour balance that expresses skin tones beautifully, making them ideal for capturing subject textures. Colour reproduction is also consistent when lenses are interchanged, which can help reduce post-production work.
- HDR video offers an expanded tonal range that represents the visual expression close to its natural image. Our 8K-compatible chromatic aberration correction reduces colour bleeding, and the light-shielding design and optimized coatings reduce ghosting and flaring.
- The inner focus system reduces focus breathing, giving greater stability to framing a shot.
- The 11-blade iris gives the lenses a natural bokeh effect that is almost circular from maximum to the minimum aperture. The odd number of blades diffuse the glow of high luminance subjects for softer imaging.

#### Swappable Relay Kits

A Canon first, the Flex Zoom lenses can be swapped between Super 35mm and Full Frame imaging formats, using a relay kit (sold separately). This provides even more versatility for your productions!



## FLEX ZOOM Lens Series: Highlights

### 8K Optical Performance with Canon Cinema EOS Colour Science

The lenses produce superb colour rendition and detail, with sharp images from the center to the outer edges, rated for 8K HDR capture.

### Constant T-stop Throughout the Zoom Range

Offering a constant maximum T-stop value across the zoom range. Large aperture lenses allow for more light to reach the sensor, and the light transmission remains constant throughout the zoom range.

### Advanced Lens Metadata Support

Compliant with a wide range of communication standards thanks to the versatile lens-to-camera communication function including Cooke/i Technology™ and Zeiss eXtended Data™ [PL mount/ Lemo 4-PIN] and EF communication [EF mount].

### Outstanding Optics

Built for longevity, the premium design and outstanding optics and components, offer quick and precise operation, with durability ideal for professional video productions.

### Cinema Style Operability

Weighing under 8 pounds and measuring under 10 inches long, the lenses also feature focus, zoom, and iris rings with industry standard gears and 0.8mm pitch to suit many third party follow focus accessories.

### Available in EF Mount or Cooke/i Technology™ PL Mount Options

### Swappable Mount Kits

Lenses can be switched between EF and PL with a mount kit (sold separately).

### Attractive Bokeh

The 11-blade iris gives the lenses a natural bokeh effect that is almost circular from maximum to the minimum aperture. The odd number of blades diffuse the glow of high luminance subjects for softer imaging.

### Swappable Relay Kits

Lenses can be switched between Super 35mm and Full Frame imaging formats with a relay kit (sold separately).





# OUTSTANDING OPTICAL PERFORMANCE

## Introducing the 8K RF Prime Lens Series

The RF Cinema Prime series of lenses from Canon has been designed for outstanding optical performance rendering sharp and beautiful images. This series includes seven lenses, ideal for shooting 8K as well as HDR, and represent Canon's first cinema lenses to have a native RF mount. This lens series ushers in the RF lens communication to fully manual cinema glass, ideal for shooting with RF-mount cameras including third-party cameras that utilize a native RF mount.

The RF Cinema Prime series covers seven focal lengths, with lenses at 14, 20, 24, 35, 50, 85, and 135 millimeters and share a common gear positioning and diameter across all seven lenses.

**FEATURES:**  
**RF Mount Cinema Lenses for Professional Productions**  
Step into cinematic filmmaking with a range of RF Cinema Prime lenses that offer ultra-fast, real-time metadata capture plus all-new features such as in-camera electronic distortion correction.

**8K Optical Performance with Canon Cinema EOS Colour Science**  
Rated for 8K HDR image capture the lenses produce superb colour rendition and detail, with sharp resolution from the center to the outer edges. An 11-blade iris creates soft, beautiful light rays and stunning depth-of-field falloff. The lenses render the beautiful and warm colour tones synonymous with Canon's cinema lens family.  
  
Canon's advanced optical technology and lens coatings have combined to achieve 8K optical performance. Various types of aberrations have been corrected to



achieve beautiful imagery from the center of the image out to all edges.  
  
All of Canon's cinema lenses have been designed with a consistent warm colour balance that expresses skin tones beautifully, making them ideal for capturing subject textures. Colour reproduction is also consistent when lenses are interchanged, which can help minimize corrections in post.

HDR video offers an expanded tonal range that represents the visual expression close to its natural image. Our 8K-compatible chromatic aberration correction reduces colour bleeding, and the light-shielding design and optimized coatings reduce ghosting and flaring.  
  
The inner focus system reduces focus breathing, giving greater stability to framing a shot.  
  
The 11-blade iris gives the lenses a natural bokeh effect that is almost circular from maximum to the minimum aperture. The odd number of blades diffuse the glow of high luminance subjects for softer imaging.

## RF PRIME Lens Series: Highlights

**8K Optical Performance with HDR Support**

**Peripheral Illumination, Chromatic Aberration And Distortion Correction\***

**Dual Pixel Focus Guide<sup>(\*)</sup>**

**Full Frame Sensor Coverage**

**Refined Ergonomics, Redefined Handling**  
Confidently secure your lenses without the need for an adapter when utilizing RF mount Canon Cinema EOS cameras or compatible third party cameras. With a newly developed fixed ring design, RF Cinema Prime lenses make handheld operation more comfortable, intuitive, and efficient.

**Distortion Correction**  
High-speed data transfer makes it possible to instantly transfer lens metadata to the camera, enabling distortion correction according to lens characteristics when shooting video with compatible cameras<sup>(\*)2</sup>.

**Full Frame Creativity**  
The RF Cinema Prime lenses are designed for Full-Frame, Large-Format cameras, enabling impressive images using bokeh with a shallow depth of field.

**300-degree Focus Rotation with Phosphorescent Markings**  
RF Prime Lens Series  
φ114mm 300°

**11-Blade Iris**  
With the increased number of iris blades, users can get natural bokeh that appears more circular, from maximum to minimum aperture. The use of an odd number of blades diffuses light rays in high-brightness subjects and renders images more artistically pleasing.

**Native RF Mount & Communication On Fully Manual Lens**

**Mechanical Precision in a Compact Design**  
With a smooth and consistent 300-degree focus rotation, consistent gear positions, front diameter and a compact, robust and drip-proof design, offering a no-compromise lightweight solution for professional productions.

\*1: With Compatible Cameras  
\*2: \* Supported cameras (as of September 2023): EOS C70, EOS R5 C (Movie Mode only)

## CINE-SERVO Lens Series: Highlights

CINE-SERVO 50-1000mm  
CINE-SERVO 17-120mm

CINE-SERVO 25-250mm  
CINE-SERVO 15-120mm

**Robust and Durable Housing Structure**

**Support Industry-Standard Cameras**  
Covers Super 35mm and APS-C sensors.

**High Durability and Ruggedness**

**Multiple Communication Capability with Compatible Cameras**

**Ergonomic Design**  
Ergonomically designed drive unit for ease of operation.

**4K Optical Performance with Canon Cinema EOS Colour Science**

**Support High Quality 4K/Hdr Shooting**  
High optical performance with support for Super35mm large format cameras.

**High Durability and Ruggedness**  
The CINE-SERVO Lenses offer the ruggedness and reliability required to fulfill the exacting needs of broadcast applications, with a robust chassis construction that is weather and shock-proof.

**Removable Servo Drive Unit**  
Removable servo drive unit with various user setting capabilities.

**Accessory Connectors**  
Three 20-pin connectors for externally operated accessories and a 16-bit metadata output for virtual studio systems.

**11-Blade Iris Provides Natural Bokeh**

**Designed for Cinema and Broadcast Applications**

**Compact and Lightweight**  
Compact and lightweight lens available in an EF mount and PL mount that can be converted at an authorized Canon service facility.  
RF mount is also available for CINE-SERVO 17-120mm.

**Next-Generation e-Xs V Servo Drive Unit<sup>2</sup>**  
Faster focus and iris speed, Focus Breathing Compensation, and a USB-C connector. The e-Xs V Drive Unit can also be detached to be used in manual-style cinema configurations.

**Built-In 1.5x Optical Extender<sup>1</sup>**  
Cover the image size of Full Frame.

\*1: Not available on CINE-SERVO 17-120mm  
\*2: Only available on CN7x17 KAS T/R1 and CN7x17 KAS T/P1

## COMPACT-SERVO Lens Series: Highlights

**Refined Iris Mechanism**  
• Seamless Manual Control Capability  
• 9-Blade Iris  
• Iris Closing

**Compatible with EF-mount Cameras**

**Practical Layout of Switches**

**High Level 4K Optical Performance**

**Covers Super 35mm and APS-C Sensors**

**Image Stabilization**

**Minimized Focus Breathing**

**Supports a Wide Range of Accessories**

**Compact and Lightweight for Increased Mobility**

**Dual Pixel CMOS Auto-Focus (DAF)**

**Enhanced Servo Drive Unit**  
• Servo Control Capability for all Zoom, Focus, and Iris  
• Compatible with broadcast style servo lens controllers  
• Optional ZSG-C10 Grip

COMPACT-SERVO 4K



Drive Unit

Removable Drive Unit

Canon CINE-SERVO lenses include a drive unit that provides the same user experience as found in our broadcast zoom lenses. Removing the drive unit allows for full manual operation of the lenses.



No Initialization

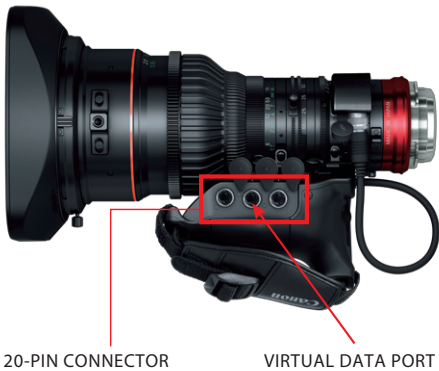
Initialization of the drive unit is not required at power-on. Initialization is required at power-on for conventional drive units. Immediate startup helps contribute to more efficient shooting.

Compatible With Standard Broadcast Demands Demand Supported

Compatible with Canon’s standard broadcast industry demands such as ZSD-300D and FPD-400D. Canon’s 8-pin demand\* can be connected via a conversion cable.

Enables High-Precision, Natural Composition Virtual Studio System

Three, 20-pin terminals allow a virtual connection even when zoom and focus demands are connected. The center terminal connects to a virtual studio system by relaying zoom, focus and iris positional data. Zoom and focus data are encoded by a high-precision, 16-bit encoder.



\* Iris operation is also possible by connecting FDJ-P01 via conversion cable. It will be selected as either virtual output or iris operation.

Peripheral Illumination Correction

EF Mount Communication Protocol Support<sup>\*1</sup>

Information communication is possible via CINEMA EOS SYSTEM cameras and mounts. It is possible to record lens information at the time of shooting and peripheral illumination correction<sup>\*2</sup>.

<sup>\*1</sup>: ZOOM Lenses are excluded. Only EF mounted lenses are supported.  
<sup>\*2</sup>: Some lenses require a camera firmware update. Some lenses are scheduled to be handled by firmware update.

Supports Broadcast Industry Standards 12-Pin Serial Communication\*

Supports 12-pin serial communication which is a broadcasting communication standard.

\* Applicable lens: CINE-SERVO Lens series.  
It is necessary for the camera side to support 12 pin serial communication.

Supports Communication Standards of Film Production Industry /i Technology Compatible\*

Canon's PL-mount CINE-SERVO lenses are compatible with Cooke's “/i Technology” communication standard which has been widely adopted throughout the video production industry. Focus/zoom/aperture position data can be sent to the corresponding camera, recorded and displayed.

\* Applicable lens: PL mount lens of CINE-SERVO Lens series only.  
The camera side must support /i Technology.  
Communication is possible when drive unit is installed.

Supports Virtual Production

RF Mount Communication Protocol Support<sup>\*1</sup>

In addition to the functions of EF Mount Communication, RF mount communication includes data for distortion and shading correction which helps improve workflow for virtual production.

Zeiss eXtended data Compatible<sup>\*2</sup>

An extension of the Cooke /i Technology communications standard. Also supports distortion and shading correction for virtual production.

<sup>\*1</sup>: Applicable lenses: CN7x17 KAS T/R1 when combined with supported cameras  
<sup>\*2</sup>: Applicable lenses: CN7x17 KAS T/P1, CN8x15 KAS S/P1

FLEX ZOOM Lens Series

	CN-E14-35MM T1.7 L S / SP		CN-E31.5-95MM T1.7 L S / SP		CN-E20-50MM T2.4 L F / FP		CN-E45-135MM T2.4 L F / FP	
								
	S35		S35		Full Frame		Full Frame	
Model Name	CN-E14-35mm T1.7 L S / SP		CN-E31.5-95mm T1.7 L S / SP		CN-E20-50mm T2.4 L F / FP		CN-E45-135mm T2.4 L F / FP	
Mount	EF	PL	EF	PL	EF	PL	EF	PL
Zoom Ratio	2.5x		3x		2.5x		3	
Focal Length	14-35mm		31.5-95mm		20-50mm		45-135mm	
Maximum Diameter Ratio (T-Number)	T1.7		T1.7		T2.4		T2.4	
Number of Iris Blades	11		11		11		11	
Focus Rotation Angle	300 Degrees		300 Degrees		300 Degrees		300 Degrees	
Minimum Shooting Distance	2' (0.6m)		3'4" (1.0m)		2' (0.6m)		3'4" (1.0m)	
Front Diameter	Φ114 mm		Φ114 mm		Φ114 mm		Φ114 mm	
Image Circle	31.4mm		31.4mm		6.4mm		6.4mm	
Length (Approx.)	9.5" (241.3mm)	9.2" (233.3mm)	9.7" (246.4mm)	9.4" (238.4mm)	9.5" (241.3mm)	9.2" (233.3mm)	9.7" (246.4mm)	9.4" (238.4mm)
Weight (Approx.)	7.7 lbs. (3.4 kg)		7.8 lbs. (3.5 kg)		7.3 lbs. (3.3 kg)		7.5 lbs. (3.4 kg)	
EOS-Lens Communication	Supported		Supported		Supported		Supported	
Cooke/i Technology Communication	Supported (PL mount only)		Supported (PL mount only)		Supported (PL mount only)		Supported (PL mount only)	

RF PRIME Lens Series

	CN-R14mm T3.1 L F	CN-R20mm T1.5 L F	CN-R24mm T1.5 L F	CN-R35mm T1.5 L F	CN-R50mm T1.3 L F	CN-R85mm T1.3 L F	CN-R135mm T2.2 L F
							
Model Name	CN-R14mm T3.1 L F	CN-R20mm T1.5 L F	CN-R24mm T1.5 L F	CN-R35mm T1.5 L F	CN-R50mm T1.3 L F	CN-R85mm T1.3 L F	CN-R135mm T2.2 L F
Mount	RF Mount	RF Mount	RF Mount	RF Mount	RF Mount	RF Mount	RF Mount
Zoom Ratio	—	—	—	—	—	—	—
Focal Length	14mm	20mm	24mm	35mm	50mm	85mm	135mm
Max. Relative Aperture (T-Number)	T3.1	T1.5	T1.5	T1.5	T1.3	T1.3	T2.2
Iris Blades	11	11	11	11	11	11	11
Angle of View	1.5:1 36.0x24.0mm 1.9:1 26.2x13.8mm	104.3°x81.2° <sup>*1</sup> 84.0°x61.9° <sup>*1</sup>	73.7°x53.1° <sup>*1</sup> 54.3°x32.1° <sup>*2</sup>	54.4°x37.8° <sup>*1</sup> 38.7°x22.3° <sup>*2</sup>	39.6°x27.0° <sup>*1</sup> 27.6°x15.7° <sup>*2</sup>	23.9°x16.1° <sup>*1</sup> 16.5°x9.3° <sup>*2</sup>	15.2°x10.2° <sup>*1</sup> 10.4°x5.9° <sup>*2</sup>
M.O.D. (Minimum Object Distance)	0.20m / 8"	0.30m / 12"	0.30m / 12"	0.30m / 12"	0.45m / 18"	0.95m / 3'2"	1.0m / 3'4"
Object Dimensions at M.O.D	1.5:1 36.0x24.0mm 1.9:1 26.2x13.8mm	24.8x16.5cm <sup>*1</sup> 16.9x9.5cm <sup>*2</sup>	33.8x22.5cm <sup>*1</sup> 23.1x13.0cm <sup>*2</sup>	28.8x19.2cm <sup>*1</sup> 19.7x11.0cm <sup>*2</sup>	20.1x13.4cm <sup>*1</sup> 17.0x9.5cm <sup>*2</sup>	34.3x22.9cm <sup>*1</sup> 23.4x13.1cm <sup>*2</sup>	21.1x14.1cm <sup>*1</sup> 14.4x8.1cm <sup>*2</sup>
Front Diameter	114mm	114mm	114mm	114mm	114mm	114mm	114mm
Image Circle	Φ43.3mm	Φ43.3mm	Φ43.3mm	Φ43.3mm	Φ43.3mm	Φ43.3mm	Φ43.3mm
Filter Diameter	—	105mm	105mm	105mm	105mm	105mm	105mm
Approx. Size (WxHxL)	4.66x4.66x4.64 in. (118.4x118.4x118.0mm)	4.66x4.66x4.94 in. (118.4x118.4x125.5mm)	4.66x4.66x4.94 in. (118.4x118.4x125.5mm)	4.66x4.66x4.94 in. (118.4x118.4x125.5mm)	4.66x4.66x4.94 in. (118.4x118.4x125.5mm)	4.66x4.66x4.94 in. (118.4x118.4x125.5mm)	4.66x4.66x5.49 in. (118.4x118.4x139.6mm)
Approx. Weight	2.87 lbs (1.3kg)	3.08 lbs (1.4kg)	2.87 lbs (1.3kg)	2.87 lbs (1.3kg)	2.65 lbs (1.2kg)	3.3 lbs (1.5kg)	3.3 lbs (1.5kg)

※ Lenses compatible with Full-frame and Super 35mm Sensor cameras.  
<sup>\*1</sup>: Aspect ratio 1.5:1, Screen size 36.0 × 24.0 mm. <sup>\*2</sup>: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm.

SUMIRE PRIME Lens Series

Sumire Prime

	CN-E14mm T3.1 FP X	CN-E20mm T1.5 FP X	CN-E24mm T1.5 FP X	CN-E35mm T1.5 FP X
				
Model Name	CN-E14mm T3.1 FP X	CN-E20mm T1.5 FP X	CN-E24mm T1.5 FP X	CN-E35mm T1.5 FP X
Mount	PL Mount	PL Mount	PL Mount	PL Mount
Zoom Ratio	–	–	–	–
Focal Length	14mm	20mm	24mm	35mm
Max. Relative Aperture (T-Number)	T3.1	T1.5	T1.5	T1.5
Iris Blades	11	11	11	11
Angle of View	1.5:1 36.0x24.0mm	104.3°×81.2° *1	84.0°×61.9° *1	73.7°×53.1° *1
	1.9:1 26.2x13.8mm	82.6°×52.5° *2	63.2°×38.1° *2	54.3°×32.1° *2
M.O.D. (Minimum Shooting Distance)	0.20m / 8"	0.30m / 12"	0.30m / 12"	0.30m / 12"
Object Dimensions at M.O.D	1.5:1 36.0x24.0mm	25.2×16.8cm *1	33.8×22.5cm *1	28.8×19.2cm *1
	1.9:1 26.2x13.8mm	17.2×9.7cm *2	23.1×13.0cm *2	19.7×11.0cm *2
Front Diameter	114mm	114mm	114mm	114mm
Image Circle	Φ43.3mm	Φ43.3mm	Φ43.3mm	Φ43.3mm
Filter Diameter	–	105mm	105mm	105mm
Approx. Size (WxHxL)	4.66x4.66x3.39 in. (118.4×118.4×86.0mm)	4.66x4.66x3.68 in. (118.4×118.4×93.5mm)	4.66x4.66x3.68 in. (118.4×118.4×93.5mm)	4.66x4.66x3.68 in. (118.4×118.4×93.5mm)
Approx. Weight	2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.43 lbs (1.1kg)

	CN-E50mm T1.3 FP X	CN-E85mm T1.3 FP X	CN-E135mm T2.2 FP X
			
Model Name	CN-E50mm T1.3 FP X	CN-E85mm T1.3 FP X	CN-E135mm T2.2 FP X
Mount	PL Mount	PL Mount	PL Mount
Zoom Ratio	–	–	–
Focal Length	50mm	85mm	135mm
Max. Relative Aperture (T-Number)	T1.3	T1.3	T2.2
Iris Blades	11	11	11
Angle of View	1.5:1 36.0x24.0mm	39.6°×27.0° *1	23.9°×16.1° *1
	1.9:1 26.2x13.8mm	27.6°×15.7° *2	16.5°×9.3° *2
M.O.D. (Minimum Shooting Distance)	0.45m / 18"	0.95m / 3'2"	1.0m / 3'3"
Object Dimensions at M.O.D	1.5:1 36.0x24.0mm	25.0×16.7cm *1	34.4×22.9cm *1
	1.9:1 26.2x13.8mm	17.1×9.6cm *2	23.5×13.2cm *2
Front Diameter	114mm	114mm	114mm
Image Circle	Φ43.3mm	Φ43.3mm	Φ43.3mm
Filter Diameter	105mm	105mm	105mm
Approx. Size (WxHxL)	4.66x4.66x3.68 in. (118.4×118.4×93.5mm)	4.66x4.66x3.68 in. (118.4×118.4×93.5mm)	4.66x4.66x4.24 in. (118.4×118.4×107.6mm)
Approx. Weight	2.43 lbs (1.1kg)	2.87 lbs (1.3kg)	3.09 lbs (1.4kg)

※ Lenses compatible with Full-frame and Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.5:1, Screen size 36.0 × 24.0 mm.  
\*2: Aspect ratio 1.78:1, Screen size 24.6 × 13.8 mm.

CINE-SERVO Lens Series

	CN5x11 IAS T/R1 CN5x11 IAS T/P1		CN7x17 KAS T/R1 CN7x17 KAS T/P1		CN8X15 IAS S/E1 CN8X15 IAS S/P1		CN10x25 IAS S/E1 CN10x25 IAS S/P1		CN20x50 IAS H/E1 CN20x50 IAS H/P1	
										
Model Name	CN5x11 IAS T/R1	CN5x11 IAS T/P1	CN7x17 KAS T/R1	CN7x17 KAS T/P1	CN8X15 IAS S/E1	CN8X15 IAS S/P1	CN10x25 IAS S/E1	CN10x25 IAS S/P1	CN20x50 IAS H/E1	CN20x50 IAS H/P1
Mount	RF Mount      PL Mount		RF Mount      PL Mount		EF Mount      PL Mount		EF Mount      PL Mount		EF Mount      PL Mount	
Zoom Ratio	5x		7x		8x		10x		20x	
Focal Length	11 – 55 mm or 16.5 - 82.5 mm <sup>*3</sup>		17 – 120mm		15 – 120mm		25 – 250mm		37.5 – 375 mm <sup>*3</sup>	
Max. Relative Aperture (T-Number)	T2.95 at 11 ~ 41 mm/ T3.95 at 55 mm	T4.4 at 16.5-61.5 mm/ T5.9 at 82.5 mm <sup>*3</sup>	T2.95 17 ~ 91mm / T3.9 120mm		T2.95 17 ~ 91mm / T3.9 120mm		T2.95 (25-187mm)/ T3.95 (250mm)		T4.4 (37.5-281mm)/ T5.9 (375mm) <sup>*3</sup>	
Iris Blades	11		11		11		11		11	
Angle of View	96.4°×64.2°at 11mm/ 25.2°×14.3°at 55mm <sup>*1</sup>	73.4°×45.4°at 16.5mm/ 17.0°×9.6°at 82.5mm <sup>*3</sup>	71.8°×44.2° 17mm 11.7°×6.6° 120mm <sup>*1</sup>		78.7°× 49.4°at 15mm 11.7°× 6.6°at 120mm <sup>=1</sup>		52.4°×30.9° 25mm 5.6°×3.2° 250mm <sup>*1</sup>		36.3°×20.9° 37.5mm 5.5°×3.7° 375mm <sup>*1,3</sup>	
	100.0°×64.2°at 11mm/ 26.8°×14.3°at 55mm <sup>*2</sup>	76.9°×45.4°at 16.5mm/ 18.0°×9.6°at 82.5mm <sup>*3</sup>	75.2°×44.2° 17mm 12.5°×6.6° 120mm <sup>*2</sup>		82.3°× 49.4°at 15mm 12.5°× 6.6°at 120mm <sup>*2,3</sup>		55.3°×30.9° 25mm 6.0°×3.2° 250mm <sup>*2</sup>		38.5°×20.9° 37.5mm 4.0°×2.1° 375mm <sup>*2,3</sup>	
M.O.D. (Minimum Object Distance)	0.6 m / 2.0'		0.85 m / 2.8'		0.85 m / 2.8'		1.2 m / 4.0'		3.5 m / 11.5'	
Object Dimensions at M.O.D	69.7×39.1cm at 11 mm/ 13.3×7.5cm at 55 mm <sup>*1</sup>	46.5×26.1cm at 16.5mm/ 8.9×5.0cm at 82.5mm <sup>*3</sup>	86.6×48.6cm 17mm 12.0×6.7cm 120mm <sup>*1</sup>		93.0×52.1cm at 15mm 11.3×6.3cm at 120mm <sup>*1</sup>		86.5×48.5cm 25mm 8.7×4.9cm 250mm <sup>*1</sup>		57.7×32.3cm 37.5mm 5.8×3.3cm 375mm <sup>*1,3</sup>	
	74.2×39.1cm at 11mm/ 14.2×7.5cm at 55mm <sup>*2</sup>	49.5×26.1cm at 16.5mm/ 9.5×5.0cm at 82.5mm <sup>*3</sup>	92.2×48.6cm 17mm 12.8×6.7cm 120mm <sup>*2</sup>		99.0×52.1cm at 15mm 12.0×6.3cm at 120mm <sup>*2</sup>		92.1×48.5cm 25mm 9.3×4.9cm 250mm <sup>*2</sup>		61.4×32.3cm 37.5mm 6.2×3.3cm 375mm <sup>*2,3</sup>	
Front Diameter	Ø114mm		Ø114mm		Ø114mm		Ø114mm		Ø136mm	
Filter Diameter	Hood: UV/127mm-H, CL/127mm-H Lens: CL/112mm		Hood: UV/127mm-H, CL/127mm-H Lens: CL/112mm		Hood: UV/127mm-H, CL/127mm-M-H Lens: CL/112mm		Hood: UV/127mm-H, CL/127mm-H Lens: CL/112mm		Lens: CL/127mm-H, UV/127mm-H	
Approx. Size (WxHxL)	186.6 x 129.9 x 301.0mm	186.6 x 129.9 x 269.0mm	6.85x4.92x11.30 in. (174.1×125.0×286.9mm)	6.85x4.92x10.04 in. (174.1×125.0×254.9mm)	7.35x5.19x11.61 in. (186.7×131.7×294.9mm)	7.35x5.19x11.30 in. (186.7×131.7×286.9mm)	7.6x5.2x11.1 in. (186.7×131.7×282.1mm)	7.6x5.2x10.8 in. (186.7×131.7×274.1mm)	6.89x6.72x16.27 in. (175.0×170.6×413.2mm)	6.89x6.72x15.95 in. (175.0×170.6×405.2mm)
Approx. Weight	3.01 kg	2.92 kg	6.86 lbs (3.11kg)	6.7 lbs (3.04kg)	7.5 lbs (3.4kg)	7.5 lbs (3.4kg)	6.7 lbs (3.06kg)	6.7 lbs (3.06kg)	14.55 lbs (6.6kg)	14.55 lbs (6.6kg)


※ Lenses compatible with Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.78:1, Screen size 24.6 × 13.8 mm. \*2: Aspect ratio 1.9:1, Screen size 26.2 × 13.8 mm. \*3: When using the built-in extender (1.5x).

COMPACT-SERVO Lens Series

	CN-E18-80mm T4.4 L IS KAS S	CN-E70-200mm T4.4 L IS KAS S
		
Model Name	CN-E18-80mm T4.4 L IS KAS S	CN-E70-200mm T4.4 L IS KAS S
Mount	EF Mount	EF Mount
Zoom Ratio	4.4x	2.8x
Focal Length	18 ~ 80mm	70 ~ 200mm
Max. Relative Aperture (T-Number)	T4.4 18 ~ 80mm	T4.4 70 ~ 200mm
Iris Blades	9	9
Angle of View	68.7°×41.9° 18mm 17.5°×9.9° 80mm <sup>*1</sup>	19.9°×11.3° 70mm 7.0°×4.0° 200mm <sup>*1</sup>
	72.1°×41.9° 18mm 18.6°×9.9° 80mm <sup>*2</sup>	21.2°×11.3° 70mm 7.5°×4.0° 200mm <sup>*2</sup>
M.O.D. (Minimum Object Distance)	0.5m/1.7'	1.2m/4.0'
Object Dimensions at M.O.D	43.4×24.3cm 18mm 9.5×5.3cm 80mm <sup>*1</sup>	31.3×17.5cm 70mm 11.5×6.4cm 200mm <sup>*1</sup>
	46.2×24.3cm 18mm 10.1×5.3cm 80mm <sup>*2</sup>	33.3×17.5cm 70mm 12.2×6.4cm 200mm <sup>*2</sup>
Front Diameter	84mm	84mm
Image Circle	Φ31.4mm	Φ31.4mm
Filter Diameter	77mm	77mm
Approx. Size (WxHxL)	3.67x4.22x7.18 in. (93.4×107.2×182.3mm)	3.67x4.22x7.18 in. (93.4×107.2×182.3mm)
Approx. Weight	2.65 lbs (1.2kg) (including servo unit)	2.76 lbs (1.25kg) (including servo unit)

※ Lenses compatible with Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.78:1, Screen size 24.6 × 13.8 mm.  
\*2: Aspect ratio 1.9:1, Screen size 26.2 × 13.8 mm.

COMPACT-SERVO Lens Accessories



- Rocker seesaw
- Start/Stop button<sup>\*1</sup>
- ONE-SHOT AF button<sup>\*1</sup>
- 20 PIN cable<sup>\*2</sup>
- Flexible mounting angle.

※ Sold separately.  
※ Support strut, bracket, hex wrench included.

\*1: For compatible cameras, please visit our website: [canon-europe.com/pro](https://www.canon-europe.com/pro)  
\*2: For connection to the lens body.



CINE-SERVO Lens / COMPACT-SERVO Lens Accessories

Category	Model	Notes	CN7x17 KAS T/R1 CN7x17 KAS T/P1 CN7x17 KAS S/E1 CN7x17 KAS S/P1 CN10x25 IAS S/E1 CN10x25 IAS S/P1 CN8x15 IAS S/E1 CN8x15 IAS S/P1	CN20x50 IAS H/E1 CN20x50 IAS H/P1	CN-E18-80mm CN-E70-200mm
Focus Demand	FPD-400D	There is no need for an optional cable.	●	●	● ※1 ※2
	FDJ-G01	BDC - 21 cable (20p - 12p) is required.	●	●	—
	FDJ-S01	BDC - 21 cable (20p - 12p) is required.	●	●	—
Zoom Demand	ZSD-300D	There is no need for an optional cable.	●	●	● ※1 ※2
	ZSD-15MII	CC-2008 Cable (20p - 8p) is required.	●	●	● ※1 ※2
	ZDJ-G01	BDC-21 cable (20p-18p) is required.	●	●	—
	ZDJ-S01	BDC - 21 cable (20p - 12p) is required.	●	●	—
Iris Demand	FDJ-G01	BDC - 21 cable (20p - 12p) is required.	●	●	—
	FDJ-S01	BDC - 21 cable (20p - 12p) is required.	●	●	—
Demand Cable	BDC-21	20p -12p cable. Required for FDJ-S01 / ZDJ-S01.	●	●	—
	CC-2008	20p - 8p cable. Required for ZSD-15II.	●	●	●
Clear Filter	CL/127MM-H	CL/127MM-H	●	●	—
	CL/112MM	CL/112MM	● ※4	—	—
Close-Up Lens	CL-UP500D 77MM	CL-UP500D 77MM	—	—	●
Lens Holder	LH-CN7/02	Used when you want to improve the degree of freedom of Focus ring rotation operation. (The lens support attached to the main unit is supported on the front side.)	●	—	—
Power Cable	C-ZLPR*	For power supply from external battery. 12-pin - Dtap cable.	●	●	—
Extension Cable	12P-12P CABLE 200mm	12P-12P CABLE 200mm	● ※3	● ※3	—

\* Made by IDX.

※ 1: Multiple controllers can not be connected at the same time (because there is only one connector). When installing the ZSG - C10 and enabling the operation on the grip side, you can not connect the external controller.

※ 2: For use in studio configurations, an optional Zacuto Z-CNYC. Y-cable can be used to connect zoom and focus controllers to each lens. This configuration allows for simultaneous zoom and focus operation with COMPACT-SERVO lenses.

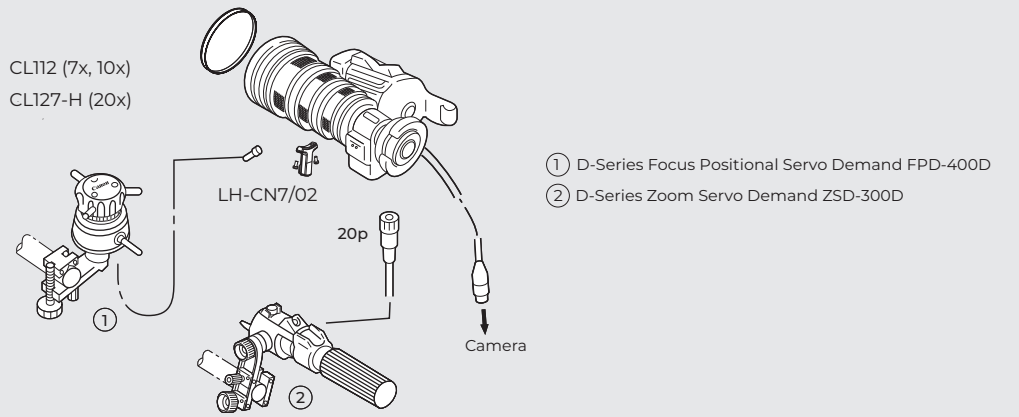
※ 3: A 12-pin extension cable is required when connected the lens 12-pin cable of the expansion unit 2 and 3 (EU-V2, EU-V3) attached to cameras such as EOS C500 Mark II or EOS C300 Mark III.

※ 4: CL/127MM-H type filter Not for use with CN7x17.

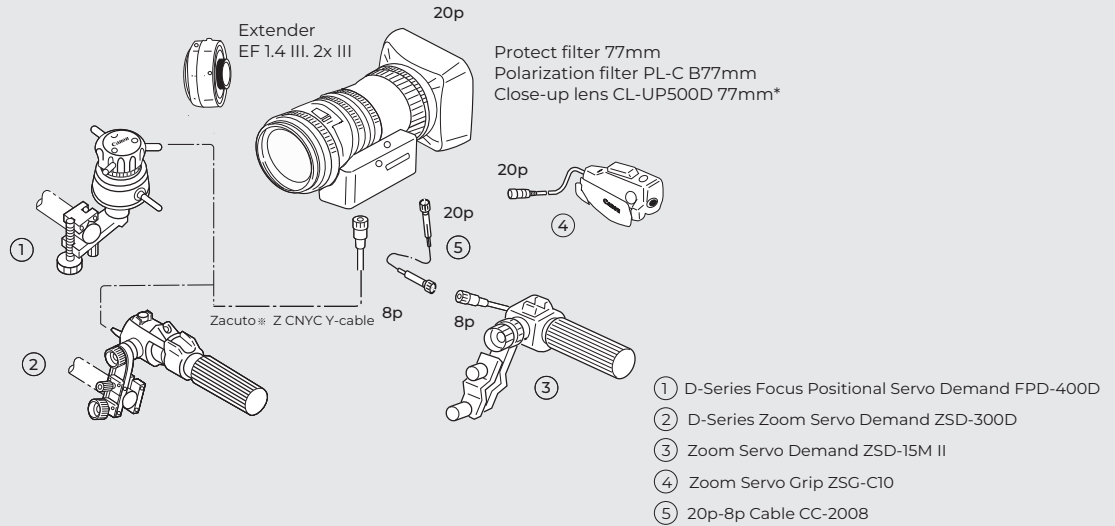


Lens System Basic Configuration

CINE-SERVO Lens



COMPACT-SERVO Lens



\* Some vignetting occurs when used in combination with RED's Epic system.

※ The optional Zacuto® Z-CNYC Y-cable allows for simultaneous use of zoom and focus controllers with both Compact-Servo lenses.



# 4K PTZ CAMERAS



## CANON 4K PTZ LINEUP

Canon's line of professional PTZ cameras are engineered to provide the highest level of image quality and compatibility for demanding professionals in a multitude of production applications.

### Broadcast-Quality Video

Drawing on over 80 years of imaging excellence, these cameras utilize genuine Canon lenses and a DIGIC imaging processor to provide 4K UHD video that can effortlessly match with Canon's Cinema EOS cameras to provide a uniform look to your broadcast or live stream. Common features of the 4K PTZ line of cameras include:

- Fast and precise autofocus
- Smooth on-air camera movements
- Oversampling HD processing for better looking HD video
- Built-in image stabilization
- Powerful low-light performance



### Flexible Connectivity

The Canon PTZ camera lineup† offers a variety of IP connectivity possibilities, including support for Canon's XC Protocol, Standard Protocol, RTSP/RTP, RTMP/RTMPS, SRT, FreeD, and NDI®|HX. Utilizing today's most popular live production protocols and streaming platforms, the cameras deliver stunning, high quality 4K video.

In addition to the various IP protocols supported, there are a variety of video features on Canon PTZ cameras that are appealing to productions of all types. HDMI and SDI outputs are vital for broadcasting, while Genlock and Timecode are key features for any multi-camera production. Select models also support the FreeD protocol for virtual set productions.

The cameras are also compatible with the Canon RC-IP100 and RC-IP1000 controllers, the Remote Camera Control Application via IP† and selected third-party controllers, making integration with existing set-ups a breeze.

†CR-X500 does not support IP or any of the IP protocols listed. Not all features available on all cameras.  
\*Add-on applications sold separately.



# ADD-ON APPLICATIONS

Available on Select PTZ cameras, users can install paid apps through the Add-On Applications System, and operate them within the cameras without the need for an external device.

## Auto Tracking



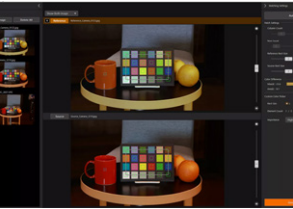
The Auto Tracking Application follows a speaker and maintains their composition in the image during presentations, lectures and other events. Thanks to Canon's high-performance pan/tilt/zoom mechanism and the automatic tracking application, the camera can smoothly capture movements of people with broadcast quality video. Auto Tracking Lite comes free of charge with every Canon PTZ Camera.

## Auto Loop



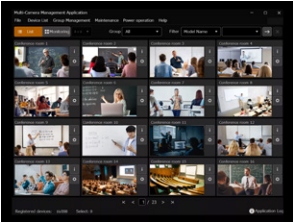
The Auto Loop Application empowers the camera to automatically repeat pan/tilt/zoom (PTZ) staging movements ordinarily performed by camera operators during the broadcast of events, as well as TV and movie productions. "Fade mode" adjusts the speed of the camera motions as they begin and end, enabling the automated camera system to mimic professional camerawork.

## Camera Colour Matching Application



This powerful yet easy-to-use application provides effortless colour matching between the Canon CR-N700 PTZ camera and both Canon or third-party cameras with professional results without the need for advanced colour grading skills.

## Multi-Camera Management Application



Monitor and manage up to 200 cameras direct from your PC and perform key tasks such as multi-view monitoring, device backup, assignment and registration as well as perform firmware updates to linked cameras simultaneously.

## Remote Camera Control Application

Take control of your remote cameras with this free software controller, designed to operate up to 20 PTZ and Professional Video cameras over IP. Preview up to nine cameras on screen and make adjustments to focus, pan, zoom, tilt and exposure in real time, direct from your computer.



## Webcam Driver

The Webcam Driver allows for compatible Canon PTZ cameras to be used as high quality webcams for teleconferencing applications.



# CANON 4K PTZ CAMERA LINEUP

## INDOOR CAMERAS

### CR-N100 REMOTE CAMERA



- 1/2.3" Type CMOS Sensor
- High Quality 4K 30P and FHD 60P Video Output
- HDMI, USB, and IP Video Out
- DIGIC DV 6 Image Processor
- Hybrid Auto Focus
- PoE+ Single Cable IP operation
- Variable Pan speed of .2° - 300°/sec
- Variable Tilt speed of .2° - 180°/sec
- Optical Image Stabilization
- Free Auto Tracking Lite
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



### CR-N300 REMOTE CAMERA



- 1/2.3" Type CMOS Sensor
- High Quality 4K 30P and FHD 60P Video Output
- SDI, HDMI, USB, and IP Video Out
- DIGIC DV 6 Image Processor
- Hybrid Auto Focus
- PoE+ Single Cable IP operation
- Variable Pan speed of .2° - 300°/sec
- Variable Tilt speed of .2° - 180°/sec
- Optical Image Stabilization
- Free Auto Tracking Lite
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



### CR-N500 REMOTE CAMERA



- 1.0" Type CMOS Sensor
- High Quality 4K 30P and FHD 60P Video Output
- DIGIC DV 6 Image Processor
- Canon Log 3, Wide DR Gamma Supported
- Dual Pixel CMOS Auto Focus
- Face Detection & Tracking
- PoE+ Single Cable IP operation
- Variable Pan and Tilt speed of .1° - 100°/sec
- Optical Image Stabilization
- Free Auto Tracking Lite
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



### CR-N700 REMOTE CAMERA



- 1.0" Type CMOS Sensor
- High Quality 4K 60P Video Output
- DIGIC DV 7 Image Processor
- HDR, Canon Log 3 Supported
- Dual Pixel CMOS Auto Focus
- Eye, Face, & Head detection and tracking
- Variable Pan and Tilt speed of .1° - 100°/second
- PoE++ Single Cable IP operation
- Optical Image Stabilization
- Free Auto Tracking Lite
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



## OUTDOOR CAMERAS

### CR-X300 REMOTE CAMERA



- High Quality 4K 30P and FHD 60P Video Output
- 1/2.3" Type CMOS Sensor
- DIGIC DV 6 Image Processor
- Hybrid Auto Focus
- IR Mode
- Optical Image Stabilization
- PoE++ Single Cable IP operation
- Optional Auto Loop Add-On Application
- Built-in Wiper
- Durable Aluminum Body
- IP65 Water and Dust Resistant
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



### CR-X500 REMOTE CAMERA



- High Quality 4K 60P Video Output
- 1.0" Type CMOS Sensor
- Dual Pixel CMOS Auto Focus
- Dual DIGIC DV 6 Image Processors
- Wide ±170° Pan/ +30 ~ -50° Tilt Coverage
- Canon Log 3, Wide DR Gamma Supported
- Optical Image Stabilization
- IP55 Water and Dust Resistant
- Built-in Wiper
- Durable Aluminum Body
- Virtually Seamless Integration into Canon Imaging Workflow
- Various Interfaces Supported for Multiple Applications



\*Add-on applications sold separately.



# REMOTE CAMERA CONTROLLERS

Control your multi-camera productions, using IP or serial control, with precision joystick, zoom rocker, and a touchscreen display.



## RC-IP100 Remote Camera Controller

The RC-IP100 Remote Camera Controller provides IP control for up to 100 supported Canon cameras. An additional Canon camera can be controlled through the serial port. The controller is equipped with a 7” interactive touch screen and a joystick in order to pan, tilt, zoom and change camera function settings remotely. The smooth precision of the joystick allows operators to capture on-air movements with confidence.

- Control up to 100 Canon Supported cameras
- Smooth PTZ movement and Precise Control for Professional Productions
- Adjust Pan, Tilt, Zoom and Change Camera Function Settings Remotely
- Equipped with 7” diagonal Touch Screen, Control and Zoom Lever and 4 Customizable Buttons
- Supports configuration and enabling of Add-On applications, such as Auto Tracking and Auto Loop



## RC-IP1000 Remote Camera Controller

The RC-IP1000 is an advanced PTZ controller enabling fast operation of multiple PTZ cameras through a newly developed control interface. Featuring 42 buttons and 14 dials, including assignable buttons, programmable trace operation, and adjustable speed and response controls, this controller helps enable intuitive control of multiple PTZ cameras quickly and easily. With a 7-inch touch panel that provides clear visibility and touch-screen control, showing operation menus and camera video feeds, capability to control up to 200 cameras over IP, and more cutting-edge capabilities, the RC-IP1000 is built for large multi-camera productions.

- Full-featured remote camera controller that supports 200 cameras and provides smooth PTZ movement and precise control
- 7” touch screen provides live video previews of up to 9 cameras per screen and supports touch auto focus.
- Adjust pan, tilt, zoom and change camera function settings remotely
- Control lever and zoom rocker with adjustable reaction rate
- 4K 60P video input/output via 12G SDI
- Camera OSD menu from compatible cameras can be shown on the touch panel and operated using push-button controls



	SPECIFICATION	CR-N100	CR-N300	CR-N500	CR-N700	CR-X300	CR-X500	
CAMERA	OPERATING CONDITION	Indoor				Outdoor		
	IMAGE SENSOR	<b>Type</b> 1/2.3 (1/2.3 in.) single-plate CMOS sensor <b>Total pixels:</b> approx. 21.14 MP <b>Effective pixels:</b> approx. 8.29 MP (3840 x 2160)		<b>Type</b> 1.0 (1.0 in.) single-plate CMOS sensor <b>Total pixels:</b> approx. 13.40 MP <b>Effective pixels:</b> approx. 8.29 MP (3840 x 2160)		1/2.3" 4K UHD CMOS Pro Image Sensor <b>Total pixels:</b> approx. 21.14 MP <b>Effective pixels:</b> approx. 8.29 MP (3840 x 2160)	Type 1.0 (1.0 in.) single-plate CMOS sensor <b>Total pixels:</b> approx. 13.40 MP <b>Effective pixels:</b> approx. 8.29 MP (3840 x 2160)	
	LENS	f=3.67 ~ 73.4 mm, F/1.8 ~ 2.8, 8-bladed circular aperture		f=8.3 ~ 124.5 mm, F/2.8 ~ 4.5, 9-bladed iris diaphragm		f=3.67 ~ 73.4 mm, F/1.8 ~ 2.8, 8-bladed circular aperture	f=8.3 ~ 124.5 mm, F/2.8 ~ 4.5, 9-bladed iris diaphragm	
	ZOOM	<b>Optical:</b> 20x <b>Digital:</b> 20x		<b>Optical:</b> 15x <b>Digital:</b> 20x	<b>Optical:</b> 15x <b>Digital:</b> 20x <b>Advanced (FHD):</b> 30x	<b>Optical:</b> 20x <b>Digital:</b> 20x	<b>Optical:</b> 15x <b>Advanced Zoom FHD:</b> 30x	
	ANGLE OF VIEW	<b>4K UHD:</b> Horizontal: 65.6 (W) ~ 3.6° (T) Vertical: 39.8° (W) ~ 2.0° (T) <b>Full HD:</b> Horizontal: 63.5 (W) ~ 3.4° (T) Vertical: 38.4° (W) ~ 1.9° (T)		Horizontal: 73.0 (W) ~ 5.7° (T) Vertical: 45.2° (W) ~ 3.2° (T)		<b>4K UHD:</b> Horizontal: 65.6 (W) ~ 3.6° (T) Vertical: 39.8° (W) ~ 2.0° (T) <b>Full HD:</b> Horizontal: 63.5 (W) ~ 3.4° (T) Vertical: 38.4° (W) ~ 1.9° (T)	Horizontal: 73.0 (W) ~ 5.7° (T) Vertical: 45.2° (W) ~ 3.2° (T)	
	SHUTTER SPEED	1/6 ~ 1/2000 sec. (specific values depend on the frame frequency and frame rate)		1/3 ~ 1/2000 sec. (specific values depend on the frame frequency)		1/6 ~ 1/2000 sec. (specific values depend on the frame frequency)	Auto, Manual 1/3 ~ 1/1000 sec.	
	IRIS	Manual/Automatic aperture					Auto, Manual	
	GAIN	0.0 dB ~ 36 dB		-6.0 db ~ 33.0 db		-6.0 db ~ 33.0 db	0.0 dB ~ 36 dB	Auto, Manual 0 db ~ 33.0 dB
	ND FILTER	Built-in (1/8 at maximum, gradation ND), motor operated		<b>3 levels:</b> ND1 (ND: 1/4), ND2 (ND: 1/16), ND3 (ND: 1/64) <b>Material:</b> Glass (with sunlight burn-in protection) Turret switched, motor-driven		<b>ND filter:</b> 1/8 at maximum Enhanced ND filter: 1/32	Built-in (Off, 1/4, 1/6, 1/64), motor operated	
	WHITE BALANCE	AUTO (AWB), Set A, Set B, preset settings (daylight: 5,600 K*, tungsten lamp: 3,200 K*), color temperature setting (2,000 K ~ 15,000 K), Manual *Color temperatures are given for reference purposes only.				(2,000 K ~ 15,000 K), Manual	AUTO (AWB), Set	
	FOCUS	<b>Focus mode:</b> Manual, Continuous AF, Face AF, Tracking <b>AF type:</b> Hybrid AF, Contrast AF		<b>Focus mode:</b> Manual, AF-boosted MF, Continuous AF, Face AF, Tracking <b>AF type:</b> Dual Pixel CMOS AF, Contrast AF		<b>Focus mode:</b> Manual, AF-boosted MF, Continuous AF, Face Detection & Tracking, Face only AF, Eye Detection <b>AF type:</b> Dual Pixel CMOS AF, Contrast AF	<b>Focus Mode:</b> Manual, Continuous AF, Face Detection AF, Tracking <b>AF type:</b> Hybrid AF, Contrast AF	Dual Pixel CMOS AF
	GAMMA	Normal 1 (Standard), Normal 3 (BT.709)		Normal1 (Standard), Normal2 (x4.0), Normal3 (BT.709), Normal4 (x5.0), Wide DR, Canon Log 3		BT.709 Normal, BT.709 Wide DR, BT.709 Standard, Canon Log 3, HDR (PQ), HDR(HLG)	Normal 1 (Standard), Normal 3 (BT.709)	Normal1: BT.709, Normal1: BT.2020, Wide DR: BT.709, Wide DR: BT.2020, PQ: BT.2020, HLG: BT.2020, Canon Log 3: BT.709, Canon Log 3: BT.2020
IMAGE STABILIZER	Optical-shift							
MIN. SUBJECT ILLUMINATION	Approx. 1.5 lux (shutter speed 1/30 sec., frame frequency 59.94 Hz, (P (Programmed AE) Shooting Mode), (Auto Slow Shutter On)		<b>3840x2160:</b> Approx. 1.5 lux (shutter speed 1/30 sec., frame frequency 29.97P, Gain 33.0 dB) <b>1920x1080:</b> Approx. 3 lux (shutter speed 1/60 sec., frame frequency 59.94P, Gain 33.0 dB)		<b>59.94Hz:</b> Approx. 3lux(with 1/60 sec. shutter speed, 59.94P frame rate, and 21 dB gain) <b>50.00Hz:</b> Approx. 2.5lux(with 1/50 sec. shutter speed, 50.00P frame rate, and 21 dB gain)	Approx. 3.0 lux (shutter speed 1/60 sec, frame frequency 59.94Hz (P (Program AE) shooting mode), auto slow shutter "Off")	Approx. 3 lux (shutter speed 1/60 sec., Frame Rate 59.94P, Gain 33.0 dB)	
PAN, TILT, ZOOM OPERATION	<b>Pan Range:</b> Horizontal ±180° <b>Pan Speed:</b> 0.2° ~ 300°/sec. <b>Tilt Range:</b> Vertical -30° ~ +100° <b>Pan Speed:</b> 0.2° ~ 180°/sec.		<b>Pan Range:</b> Horizontal ±170° <b>Pan Speed:</b> 0.1° ~ 100°/sec. <b>Tilt Range:</b> Vertical -30° ~ +90° <b>Tilt Speed:</b> 0.1° ~ 100°/sec.		<b>Pan Range:</b> Horizontal ±180° <b>Pan Speed:</b> 0.3° ~ 60°/sec. <b>Tilt Range:</b> Vertical -40° ~ +215° <b>Tilt Speed:</b> 0.3° ~ 60°/sec.	<b>Pan Range:</b> Horizontal ±180° <b>Pan Speed:</b> 0.3° ~ 60°/sec. <b>Tilt Range:</b> Vertical -40° ~ +215° <b>Tilt Speed:</b> 0.3° ~ 60°/sec.	<b>Pan Range:</b> Horizontal ±170° <b>Pan Speed:</b> 0.5° ~ +25°/sec. <b>Tilt Range:</b> Vertical -50° ~ +30° <b>Tilt Speed:</b> 0.3° ~ +20°/sec.	
VIDEO OUTPUT FORMAT	SDI	<b>1920x1080:</b> 59.94P/59.94i, 50.00P/50.00i/25.00P, 29.97P/23.98P (4:2:2 10 bit) <b>1280x720:</b> 59.94P, 50.00P (4:2:2 10 bit)		<b>3G-SDI: 1920x1080:</b> 59.94P/59.94i/50.00P/50.00i/29.97P/25.00P/23.98P (4:2:2 10bit) <b>1280x720:</b> 59.94P/50.00P/29.97P/25.00P/23.98P (4:2:2 10bit) <b>12G-SDI: 3840x2160:</b> 59.94P/50.00P/29.97P/25.00P/23.98P (4:2:2 10bit) <b>1920x1080:</b> 59.94P/59.94i/50.00P/50.00i/29.97P/25.00P/23.98P (4:2:2 10bit) <b>1280x720:</b> 59.94P/50.00P/29.97P/25.00P/23.98P (4:2:2 10bit) <b>720x576:</b> 50.00i (4:2:2 10bit) <b>720x480:</b> 59.94i (4:2:2 10bit)		<b>3840x2160:</b> 29.97P, 25.00P, 23.98P (4:2:2 10 bit) <b>1920x1080:</b> 59.94P/59.94i, 50.00P/50.00i/25.00P, 29.97P/23.98P (4:2:2 10 bit) <b>1280x720:</b> 59.94P, 50.00P (4:2:2 10 bit)		<b>3840x2160:</b> 59.94P (4:2:2 10 bit) <b>1920x1080:</b> 59.94P/59.94i, 50.00P/3840x2160: 59.94P (4:2:2 10 bit)
	HDMI	<b>3840x2160:</b> 29.97P, 25.00P, 23.98P (4:2:2 10 bit) <b>1920x1080:</b> 59.94P/59.94i, 50.00P/50.00i/25.00P, 29.97P/23.98P (4:2:2 10 bit) <b>1280x720:</b> 59.94P, 50.00P (4:2:2 10 bit) *Same video format required for SDI and HDMI (cannot select different formats for SDI and HDMI) *When 3840 x 2160 is selected for HDMI, video will not be outputted to SDI.		<b>3840x2160:</b> 9.94P/50.00P/29.97P/25.00P/23.98P (4:2:2 10bit) <b>1920x1080:</b> 59.94P/59.94i/50.00P/50.00i/29.97P/25.00P/23.98P (4:2:2 10bit) <b>1280x720:</b> 59.94P/50.00P (4:2:2 10bit) <b>720x576:</b> 50.00P (4:2:2 10bit) <b>720x480:</b> 59.94P (4:2:2 10bit)		<b>3840x2160:</b> 29.97P, 25.00P, 23.98P (4:2:2 10 bit) <b>1920x1080:</b> 59.94P/59.94i, 50.00P/50.00i/25.00P/29.97P/23.98P (4:2:2 10 bit) <b>1280x720:</b> 59.94P, 50.00P (4:2:2 10 bit) *Same video format required for SDI and HDMI (cannot select different formats for SDI and HDMI) *When 3840 x 2160 is selected for HDMI, video will not be outputtued to SDI.		
	IP	<b>Frame frequency 59.94 Hz 3840x2160 (CR-N700 only):</b> 59.94fps, 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>1920x1080:</b> 59.94fps, 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>1280x720:</b> 59.94fps, 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>640x360:</b> 59.94fps, 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit)		<b>Frame frequency 29.97 Hz 3840x2160:</b> 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>1920x1080:</b> 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>1280x720:</b> 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit) <b>640x360:</b> 29.97fps, 14.99fps, 5.00fps (4:2:0 8 bit)		<b>Frame frequency 23.98 Hz 3840x2160:</b> 23.98fps, 11.99fps, 5.99fps (4:2:0 8 bit) <b>1920x1080:</b> 23.98fps, 11.99fps, 5.99fps (4:2:0 8 bit) <b>1280x720:</b> 23.98fps, 11.99fps, 5.99fps (4:2:0 8 bit) <b>640x360:</b> 23.98fps, 11.99fps, 5.99fps (4:2:0 8 bit)		
	SUPPORTED PROTOCOLS	<b>Protocol:</b> XC Protocol, RTSP/RTMP, NDI@ HX, RTMP/RTMPS, Standard Communication (Serial), Standard Communication (IP), SRT		<b>Protocol:</b> XC Protocol, RTSP/RTMP, NDI@ HX, RTMP/RTMPS, Standard Communication (Serial), Standard Communication (IP), FreeD, SRT		<b>Control:</b> Canon NU Protocol		
	COMMUNICATION CONTROL	LAN, Serial, IR, USB	LAN, Wi-Fi, Serial, IR, USB	LAN, Wi-Fi, Serial, IR	LAN, Wi-Fi, Serial, IR	LAN, Serial		
NETWORK TERMINAL	LAN x 1, RJ45, 1000Base-T							
SDI OUT TERMINAL	3G-SDI, BNC jack (output only) x 1, 0.8 Vp-p/75 Ω, unbalanced SMPTE 424, SMPTE 425, SMPTE ST 299-2 compliant Embedded audio, Time code (VITC/LTC)		12G/3G-SDI OUT Terminal, BNC jack x1 12GSDI & x1 3G-SDI, 0.8 Vp-p/75 Ω, SMPTE ST 259, SMPTE ST 292, SMPTE ST 424/425, SMPTE ST2081, SMPTE ST 2082, SMPTE ST 272, SMPTE ST 299 compliant Embedded audio, Time code (VITC/LTC)		6G-SDI, BNC jack (output only) x1, 0.8 Vp-p/75 Ω, unbalanced SMPTE 2081, 424, 425, ST 299-2 compliant Embedded audio, Time code (VITC/LTC)		12G-SDI, BNC jack (output only) x1	
TIME CODE TERMINAL			BNC jack x 1, 1.3 Vp-p/50 Ω or less					
GEN-LOCK TERMINAL	BNC jack x 1, 1.0 Vp-p/75 Ω, input only						BNC jack x 1	
HDMI OUT TERMINAL	HDMI connector x 1, output only							
RS-422 TERMINAL	RJ45 connector x 1						RS-422 Serial	
MIC TERMINAL	ø3.5 mm stereo mini jack (unbalanced, plug-in power supported) · Sensitivity (MIC): -72 dBV (Manual volume center, full scale -18 dB)/1 kΩ or more/Att.: 20 dB · Sensitivity (LINE): -10 dBV (Manual volume center, full scale -18 dB)/1 kΩ or more · Supply Voltage: 2.4 V DC (Bias resistance: 2.2 kΩ)				Built-In Waterproof Microphone			
INPUT 1 / INPUT 2 XLR TERMINALS	INPUT (3-pin jack) (pin1: shield, pin2: hot, pin3: cold), 2 sets, balanced Sensitivity (MIC): -60 dBu (Manual volume center, full scale -18 dB)/600Ω /Att.: 20 dB Sensitivity (LINE): +4 dBu (Manual volume center, full scale -18 dB)/1 kΩ or more Supply Voltage: 48 V DC (Bias resistance: 6.8 kΩ)							
OTHER	OPERATING ENVIRONMENT	<b>Temperature:</b> +32°F ~ +104°F (0°C ~ +40°C) <b>Humidity:</b> 10% ~ 90% (without condensation)				<b>Temperature:</b> +5°F ~ +104°F (-15°C ~ +40°C) <b>Humidity:</b> 90% or less (without condensation) Startup temperature: +14°F ~ +104°F (-10°C ~ +40°C)		
	DUST/WATER RESISTANCE					IP65		
	POWER SUPPLY	<b>PoE:</b> PoE+ power supply via LAN connector (IEEE802.3at compliant) ~ PoE cannot be used <b>External power source:</b> 24V DC (using included AC adaptor)		<b>PoE:</b> PoE++ power supply via LAN connector (IEEE802.3at compliant) ~ PoE cannot be used <b>Ext. power source:</b> 12V DC (4-pin XLR input)		<b>PoE:</b> PoE++ power supply via LAN connector (IEEE802.3bt compliant) ~ PoE and PoE+ cannot be used <b>External power source:</b> 12V DC (use included power cable with DC plug)		
	POWER CONSUMPTION	<b>PoE+ Input:</b> Approx. 13.9W* max. (body only) <b>DC Input:</b> Approx. 13.3W max. (body only) *Class 4 (25.5 W required) for power supply devices	<b>PoE+ Input:</b> Approx. 16.2W* max. (body only) <b>DC Input:</b> Approx. 15.0W max. (body only) *Class 4 (25.5 W required) for power supply devices	<b>PoE+ Input:</b> Approx. 19.6W* max. (body only) <b>DC Input:</b> Approx. 18.6W max. (body only) *Class 4 (25.5 W required) for power supply devices	<b>PoE++ Input:</b> Approx. 39.8W* max. (body only) <b>DC Input:</b> Approx. 37.7W max. (body only) *Class 5 (40.0 W required) for power supply device	<b>PoE++ Input:</b> Approx. 39.8W* max. (body only) <b>DC Input:</b> Approx. 37.7W max. (body only) *Class 5 (40.0 W required) for power supply devices	DC 10.5 - 15 V, 90W	
	QUIETNESS	NC35 or lower		NC30 or lower		NC45 or lower (when operating at 60°/sec)		
	DIMENSIONS (W X H X D)	Approx. 6.06 x 7.01 x 6.46 in. (154 x 178 x 164 mm) (excluding protrusions)		Approx. 7.87 x 10.59 x 8.19 in. (200 x 269 x 208 mm) (excluding protrusions)		Approx. 8.54 x 12.24 x 8.54 in. (217 x 311 x 217 mm) (excluding protrusions and connector cover)		
	WEIGHT	Approx. 4.86 lb. (2.2 kg) (body only)		Approx. 9.04 lb. (4.1 kg) (body only)		Approx. 15.5 lb. (7 kg) (body only)		
	SUPPORTED CONTROLLERS	Hardware: RC-IP100, RC-IP1000 Software: Remote Camera Control Application Search Tool						

Specifications and availability subject to change without notice. Products not shown to scale. Weight and dimensions are approximate. Product shown with optional accessories. Not responsible for typographical errors.





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